					ST DEPARTMENT DIVISION C		URAL RES				AMENI	FC DED REPOR	RM 3	
		AP	PLICATION FO	R PERMI	IT TO DRILL					1. WELL NAME and N	UMBER NBU 922	-30O4BS		
2. TYPE O	F WORK	DRILL NEW WELL	REENTER	P&A WELL	DEEPEN	WELL ()			3. FIELD OR WILDCA	T NATURAL	. BUTTES		
4. TYPE O	F WELL				nane Well: NO		•			5. UNIT or COMMUNI	TIZATION NATURAL		ENT NAM	1E
6. NAME C	F OPERATOR		KERR-MCGEE OIL							7. OPERATOR PHONE				
8. ADDRE	SS OF OPERATO	OR .								9. OPERATOR E-MAII	L			
	AL LEASE NUM	BER	P.O. Box 173779		NERAL OWNERS	SHIP				12. SURFACE OWNER		anadarko	.com	
(FEDERAL	., INDIAN, OR S	TATE) UTU-463		FEDI	ERAL 📵 IND	DIAN 🔵	STATE () FEE(FEDERAL NI	DIAN \Bigg	STATE	F	EE 🔵
13. NAME	OF SURFACE	OWNER (if box 12 :	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNE	R E-MAIL	(if box 12	! = 'fee')	
	N ALLOTTEE OI	R TRIBE NAME			TEND TO COMM		RODUCTION	FROM		19. SLANT				
(If box 12	= 'INDIAN')				ATTEN AND ADDRESS OF THE PARTY		ing Applicati	on) NO 🤅		VERTICAL DIF	RECTION	AL 📵 H	HORIZON	TAL 🔵
20. LOC	TION OF WELL			FOOTAGE	S	QTF	R-QTR	SECT	ION	TOWNSHIP	R	ANGE	МЕ	RIDIAN
LOCATIO	N AT SURFACE	:	956	FNL 2220	0 FEL	NV	WNE	31		9.0 S	2:	2.0 E		S
Top of U	ppermost Prod	ucing Zone	406	FSL 1670	0 FEL	SV	WSE	30		9.0 S	2:	2.0 E		S
At Total	Depth		406	FSL 1670	0 FEL	SV	WSE	30		9.0 S	2:	2.0 E		S
21. COUN	TY	UINTAH		22. DIS	STANCE TO NEA	REST LEA		eet)		23. NUMBER OF ACR	ES IN DR		IT	
					STANCE TO NEA led For Drilling		leted)	POOL		26. PROPOSED DEPT		TVD: 104	15	
27. ELEV	TION - GROUN	D LEVEL		28. BO	OND NUMBER					29. SOURCE OF DRIL WATER RIGHTS APPR			DDI ICAD	ı E
		4892				WYB00	00291			WATER RIGHTS AFFR	43-8		AFFLICAD	LE
01.11		0			Hole, Casing					2		0	V:	147.1.1.4
String	Hole Size	Casing Size 8.625	0 - 2450	Weight 28.0	Grade & T		Max Mu			Cement Type V		Sacks 180	Yield 1.15	Weight 15.8
	12.20	0.020	0 2100	20.0	0 00 2		-	-		Class G		270	1.15	15.8
PROD	7.875	4.5	0 - 10653	11.6	P-110 L	T&C	13	.0	Pre	mium Lite High Stre	ngth	320	3.38	12.0
										50/50 Poz		1570	1.31	14.3
					А	TTACH	MENTS							
	VER	IFY THE FOLLO	WING ARE ATT	ACHED I	N ACCORDAN	ICE WITI	H THE UTA	AH OIL AN	ID GAS	CONSERVATION G	ENERA	L RULES		
w w	ELL PLAT OR M	AP PREPARED BY I	LICENSED SURVE	YOR OR E	NGINEER		СОМ	PLETE DRII	LLING PI	LAN				
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREEN	ENT (IF FE	EE SURFACE)		FORM	15. IF OPEF	RATOR I	S OTHER THAN THE LI	EASE OW	NER		
I ✓ DIF	RECTIONAL SUI	RVEY PLAN (IF DIR	ECTIONALLY OR	HORIZON	TALLY DRILLED)	торо	GRAPHICA	L MAP					
NAME Gi	na Becker			TITLE	Regulatory Analy	rst II			PHON	E 720 929-6086				
SIGNATU	RE			DATE (04/17/2012				EMAIL	gina.becker@anadark	o.com			
	BER ASSIGNED 04752488(0000		APPRO	DVAL				Bro	oo gill				
				1					Pern	nit Manager				

NBU 922-31B Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30O4BS

Surface: 956 FNL / 2220 FEL NWNE BHL: 406 FSL / 1670 FEL SWSE

Section 31 T9S R22E

Unitah County, Utah Mineral Lease: UTU-463

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta Green River	0 - Surface 1.247'	
Birds Nest	1,587'	Water
Mahogany	2,001'	Water
Wasatch	4,509'	Gas
Mesaverde	7,050'	Gas
Sego	9,311'	Gas
Castlegate	9,373'	Gas
Blackhawk	9,815'	Gas
TVD	10,415'	
TD	10,653'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-31B Drilling Program
2 of 7

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 6,874 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,630 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

NBU 922-31B Drilling Program
3 of 7

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

NBU 922-31B Drilling Program
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Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

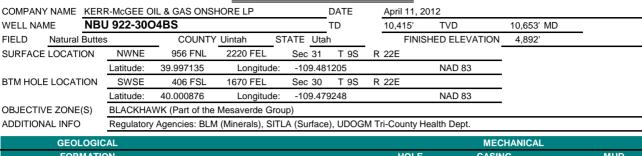
10. Other Information:

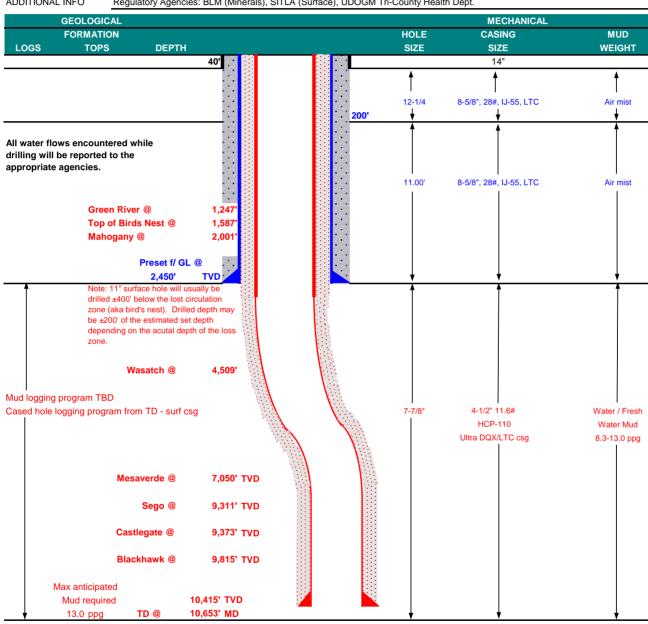
Please refer to the attached Drilling Program.

Drilling Program 5 of 7



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM





Drilling Program 6 of 7

DESIGN FACTORS



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

CONDUCTOR SURFACE

PRODUCTION

									LTC	DQX	
SIZE	INT	ERVA	_	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION	
14"	C)-40'									
							3,390	1,880	348,000	N/A	
8-5/8"	0	to	2,450	28.00	IJ-55	LTC	2.20	1.64	5.79	N/A	
							10,690	8,650	279,000	367,174	
4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.23		3.71	
4-1/2"	5,000	to	10,653'	11.60	HCP-110	LTC	1.19	1.23	5.31		

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	Т	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water t	o surface, op	tion 2 will b	e utilized		
Option 2 LEAD	1,950'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,003'	Premium Lite II +0.25 pps	320	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	6,650'	50/50 Poz/G + 10% salt + 2% gel	1,570	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

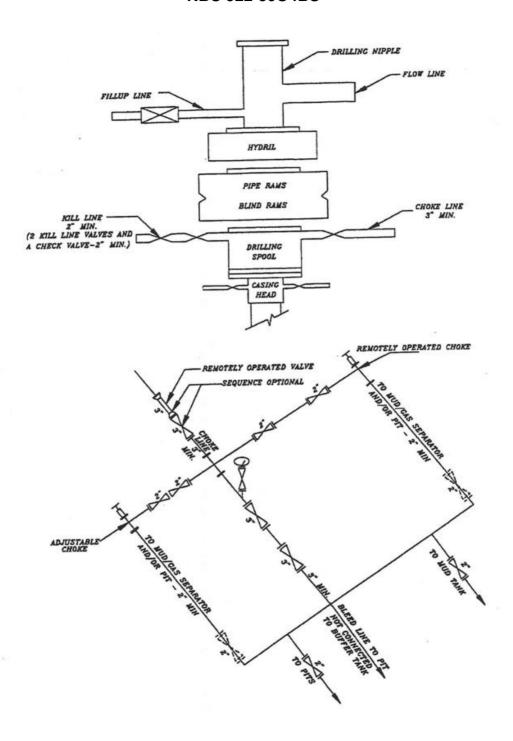
Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: DATE:

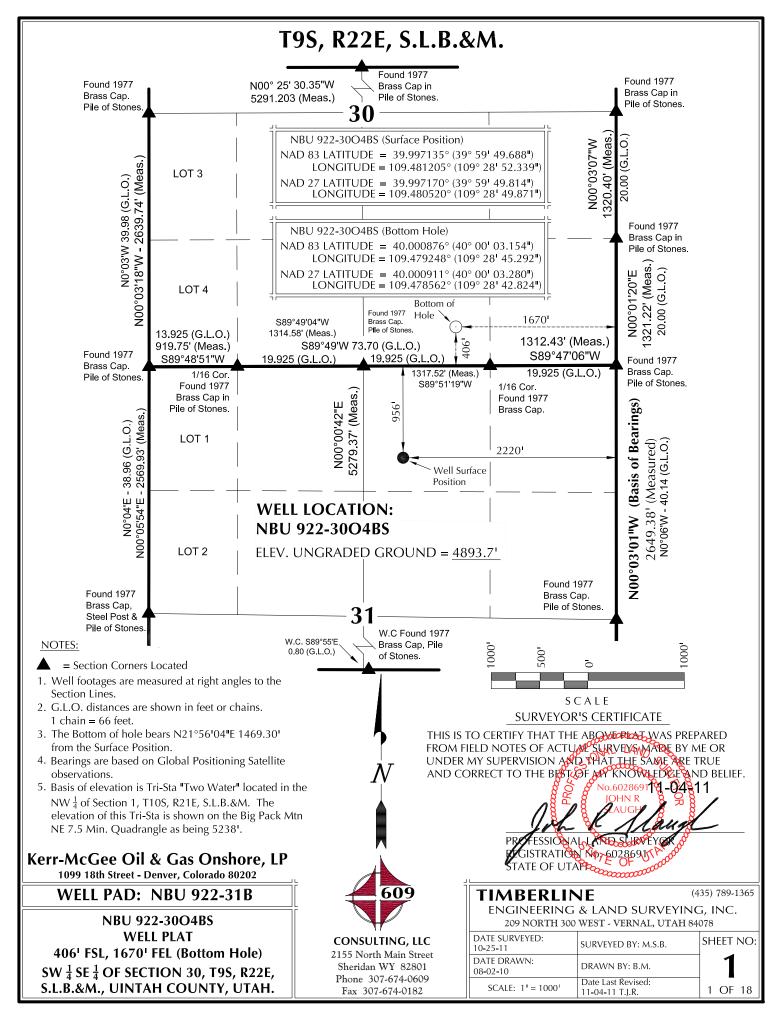
Kenny Gathings / Lovel Young

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

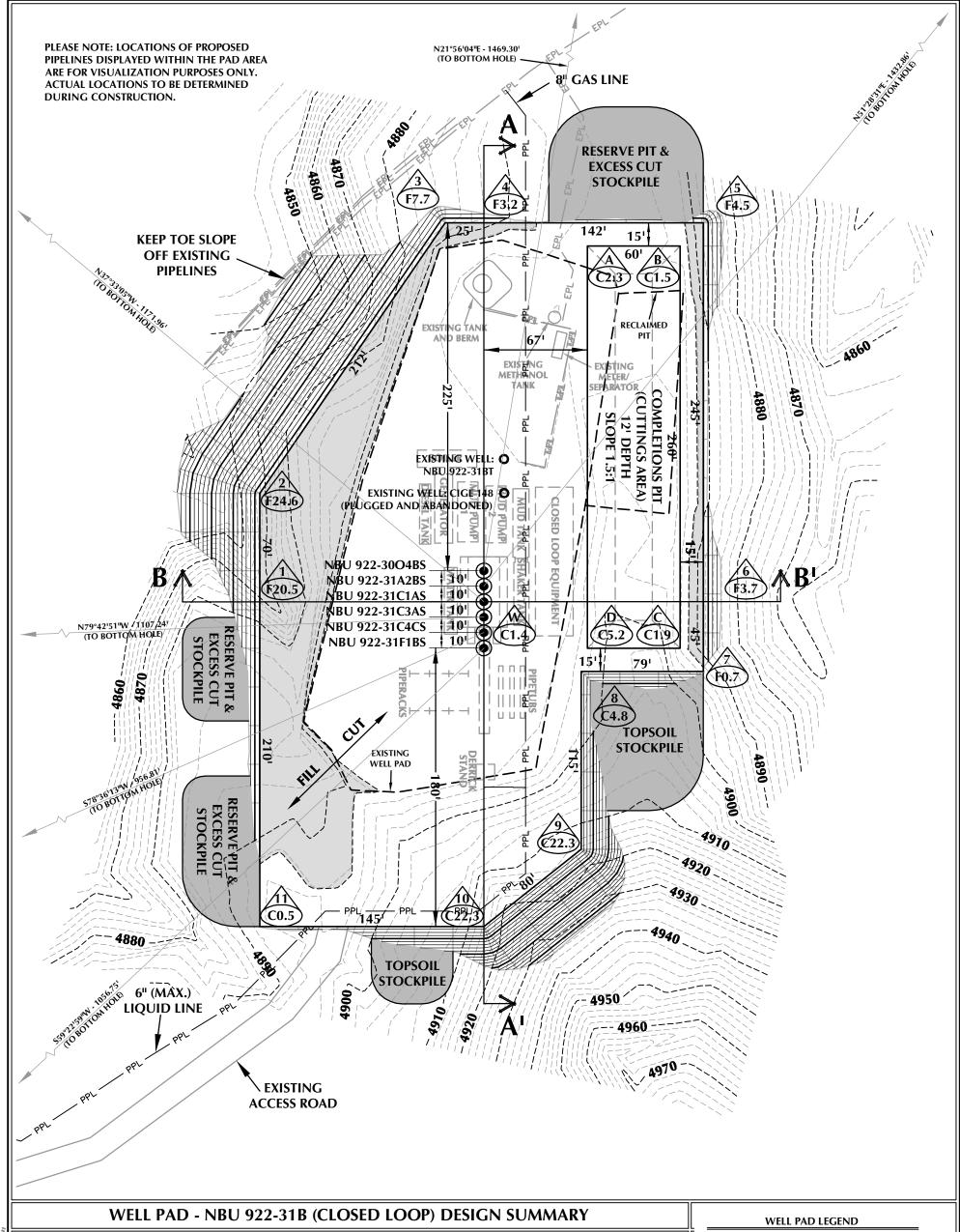
EXHIBIT A NBU 922-3004BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



			SURFACE	POSITIO	N							В	OTTOM HOLE		
WELL NAME		D83	IDE ::-	NAE		ITLUS -	F0.0	TACES	,	NAE		CITUE -	NAI		F0671 5-5
NBU	39°59'49.688"	109°28'52.		TUDE 49.814		ITUDE 49 871"	_	TAGES FNL	40°00'0	ODE 03.154"		GITUDE 8'45.292"	LATITUDE 40°00'03.280"	109°28'42.824"	
922-30O4BS	39.997135°	109.48120	5° 39.99	7170°	109.480	520°	2220)¹ FEL	40.000	876°	109.4	79248°	40.000911°	109.478562°	1670' FEL
NBU 922-31A2BS	39°59'49.591" 39.997109°	109°28'52.	I	'49.716" 7143°	109°28' 109.480		ı	' FNL 2' FEL	39°59'5 39.999!			8'37.969" 77214°	39°59'58.536" 39.999593°	109°28'35.502" 109.476528°	76' FNL 1100' FEL
NBU	39°59'49.494"	109°28'52.	.395" 39°59	'49.620"	109°28'	49.927"	975'	FNL	39°59'5	8.672"	109°2	9'01.573"	39°59'58.798"	109°28'59.105"	44' FNL
922-31C1AS NBU	39.997082° 39°59'49.398"	109.48122 109°28'52.		7117° '49.523"	109.480 109°28'			1' FEL ' FNL	39.9990 39°59'5			83770° 9'06.417"	39.999666° 39°59'51.474"	109.483085° 109°29'03.949"	1927' FWL 784' FNL
922-31C3AS	39.997055°	109.48122	8° 39.99	7090°	109.480	543°	2226	5¹ FEL	39.997	597°	109.4	35116°	39.997632°	109.484430°	1551¹ FWL
NBU 922-31C4CS	39°59'49.301" 39.997028°	109°28'52. 109.48123		'49.427" 7063°	109°28' 109.480		995'	' FNL 3' FEL	39°59'4 39.996!			9'04.498" 84583°	39°59'47.557" 39.996544°	109°29'02.030" 109.483897°	1181' FNL 1701' FWL
NBU 922-31F1BS	39°59'49.204" 39.997001°	109°28'52.	.477" 39°59	'49.330" 7036°	109°28'	50.009"	1004	' FNL	39°59'4		109°2	9'04.158"	39°59'44.011"	109°29'01.690"	1540' FNL
922-31F1BS CIGE 148	39°59'50.143"	109.48124 109°28'52.		50.269"	109.480 109°28'		2230 9091		39.995	JZ4 "	109.4	84488°	39.995559°	109.483803°	1728' FWL
NBU	39.997262° 39°59'50.356"	109.48112 109°28'51.		7297° '50.482"	109.480 109°28'		2196 888'	o' FEL							
922-31BT	39.997321°	109.48110		7356°	109.480		2191								
				LATIVE (
WELL NAME	NORTH	EAST	WELL NA		ORTH	EAS		WELL	NAME	NOR		EAST	WELL NAM		EAST
NBU 922-30O4BS	1362.9'	548.81	NBU 922-31A2I	s 8	92.5'	1121.	.0'	NBU 922-31	C1AS	929.	.1'	-714.3	NBU 922-31C3A	s 197.7'	-1089.41
WELL NAME	NORTH	EAST	WELL NA	AE NO	ORTH	EAS	T								
NBU 922-31C4CS	-189.1'	-937.9'	NBU 922-31F1B	s -5	38.21	-909.	4'			,		/_			
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	1 7	To Botton	_ 1107.2.	1'	2		NBL	1922	-30O	4BS A	/ Z +~	_ /	H.=27.1783 H.=24.84556 l.=23.093899		
	1	2001	''' Hole)		''		NBU	922	31A2	BS AZ	10 ; 3. to r	Exist. W.	H.=27		
	1				~ o 7		VBU	922	•1C1, ≥1 ○ =	15 Az.	to E	XISt. W.	4.=21.1783.	3°51 a	
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Δ7:	=258.60361 36'13"W - 95	66.8 <u>1'</u> —	. — — —	206° 25	/		o∪ 9	22.3	1C4C	S Az. 1	to Fvi	st. W.H.	=21 75-	71.5'	
S78°	=258.60367 36'13" <u>W</u> -95 Bottom Ho	le)	7239.38 7239.38 7239 BOTT	1020 12	5 6	12°26′59″W			- 105	Az. to	ام- O Exid	or. W.H.	1.=23.09389° 1.=23.09389° =21.75778° =20.75333° =19.92056° ;	81.31	
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	22-31C4C5 8 ED IN SECTI			- 11		Sherida Phone		7 82801		08-02		v i N.	DRAWN BY:		
	M., UINTAH							74-0609 4-0182	7	S	CALE:	1" = 60'	Date Last Rev 11-04-11 T.J.		7 OF 18
3.L.D.Q	m, UNIAL	COUNT	т, отап			rax J	V1-01	1-0102					[11 - 04-11 1.].	IX.	, 01 10



EXISTING GRADE @ CENTER OF WELL PAD = 4893.6'
FINISHED GRADE ELEVATION = 4892.2'
CUT SLOPES = 1:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 2.98 ACRES
TOTAL DISTURBANCE AREA = 3.46 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-31B

WELL PAD - LOCATION LAYOUT NBU 922-30O4BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS & NBU 922-31F1BS LOCATED IN SECTION 31, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH



2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

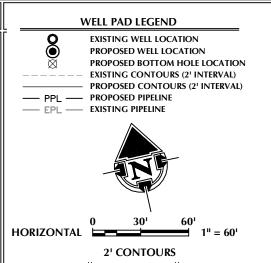
WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 12,248 C.Y. TOTAL FILL FOR WELL PAD = 11,350 C.Y. TOPSOIL @ 6" DEPTH = 1,506 C.Y. EXCESS MATERIAL = 898 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT +/- 4,570 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 16,750 BARRELS

TIMBERLINE (435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



RECEIVED: April 17, 2012

DJD 6/14/12

1/4/11 | SHEET NO:

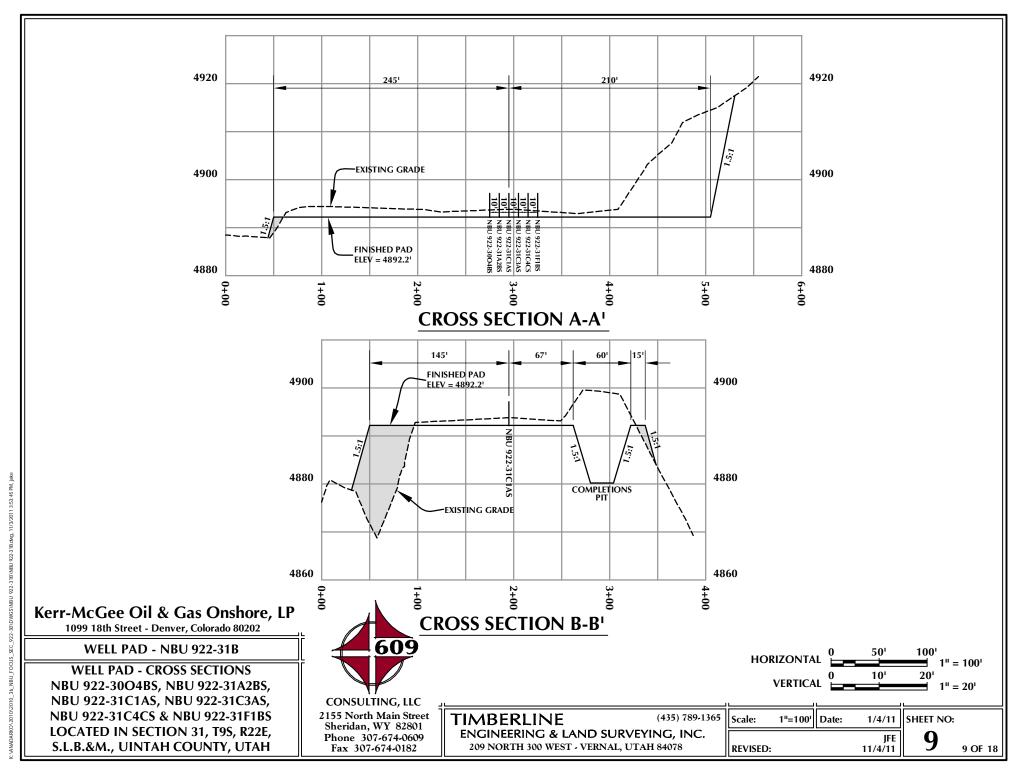
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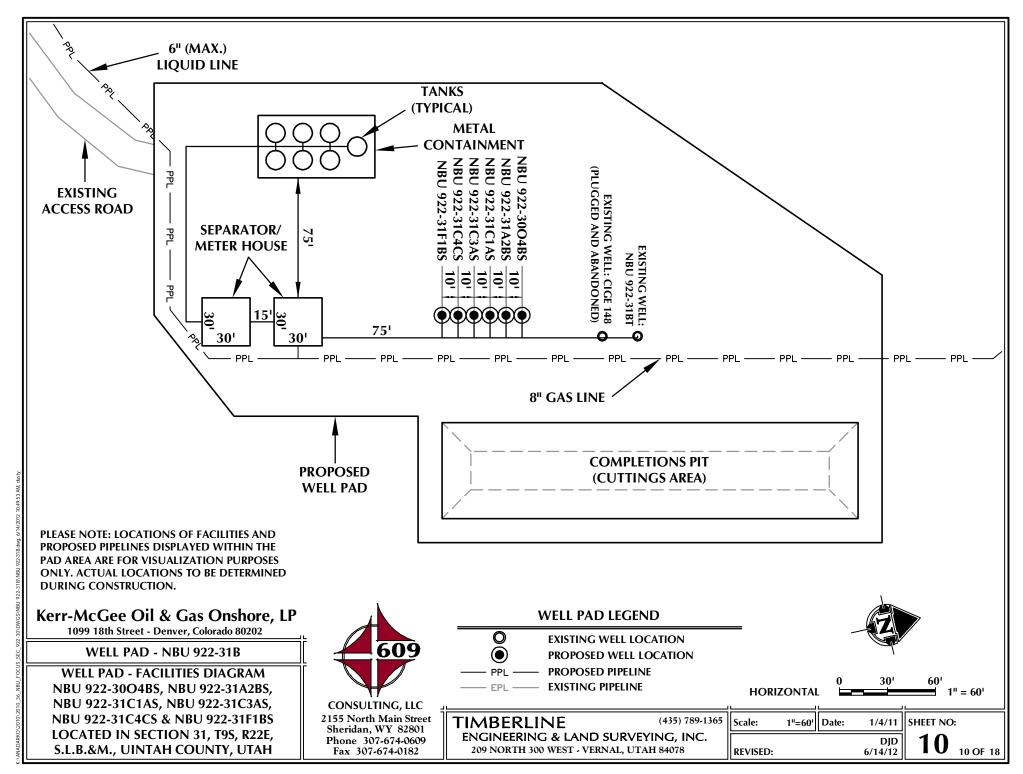
8 OF 18

1"=60' DATE:

SCALE:

REVISED:





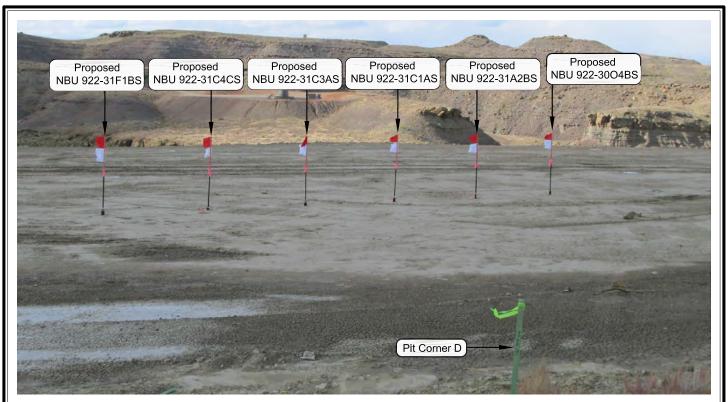


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-31B

LOCATION PHOTOS NBU 922-30O4BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS & NBU 922-31F1BS LOCATED IN SECTION 31, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609

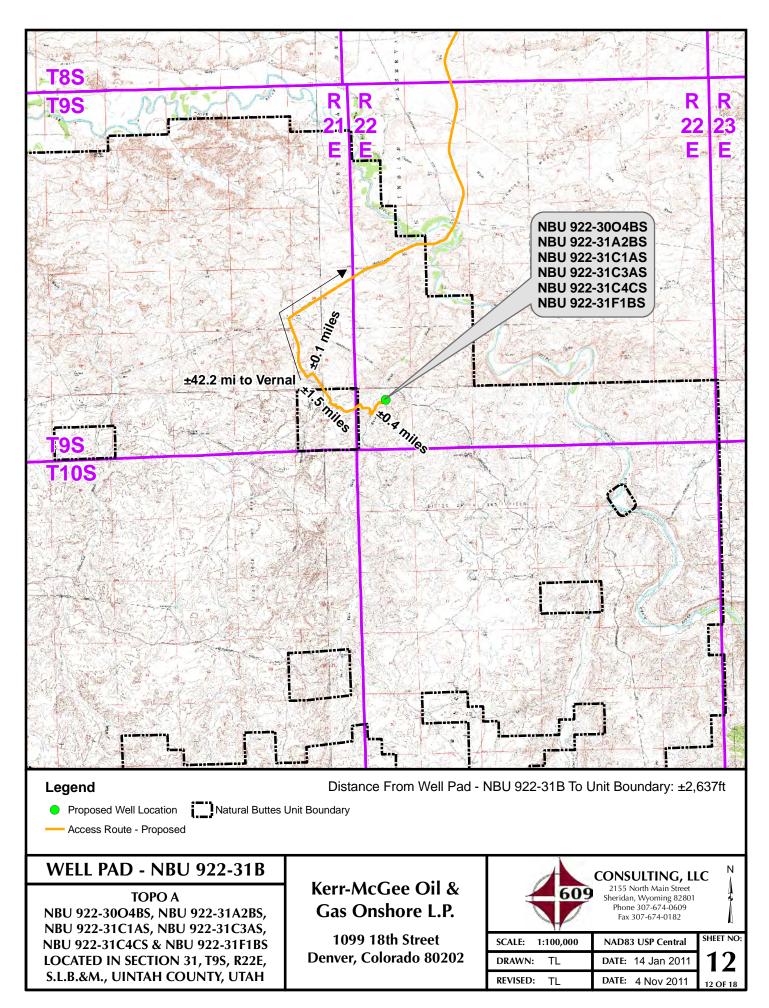
Fax 307-674-0182

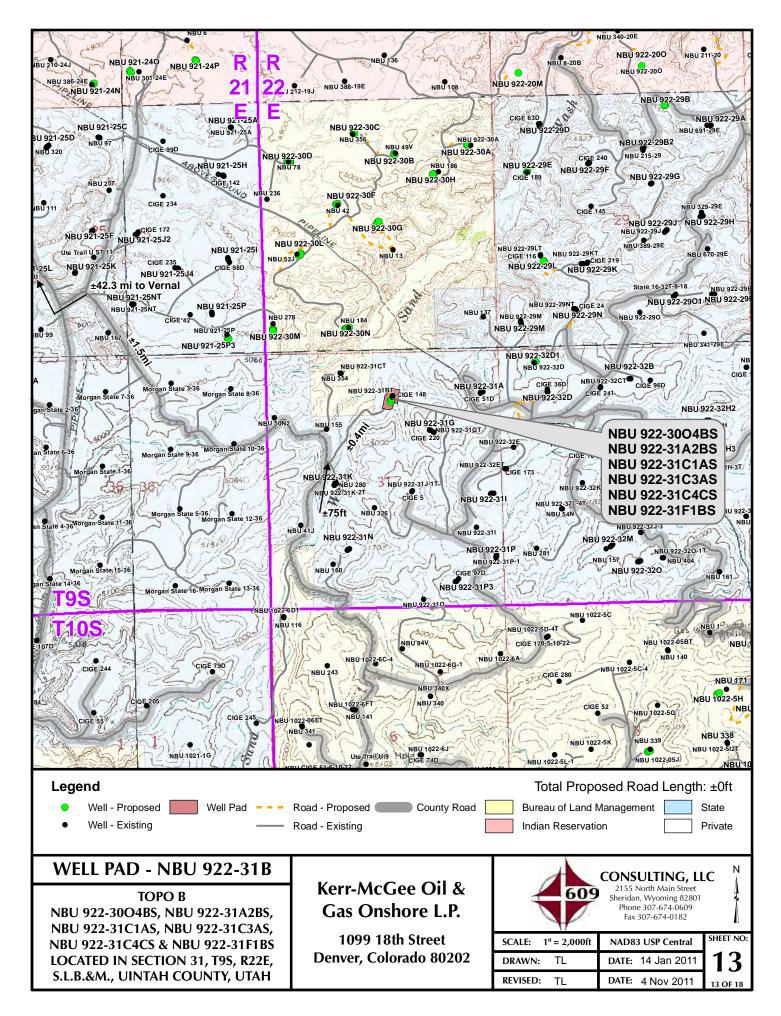
TIMBERLINE

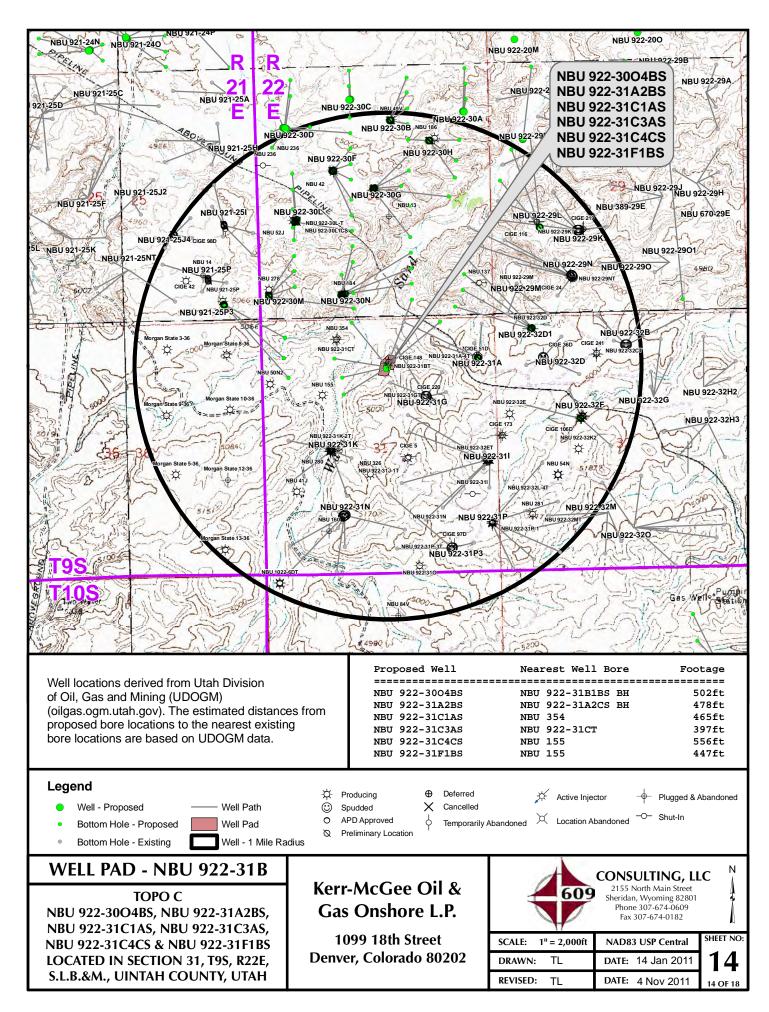
(435) 789-1365

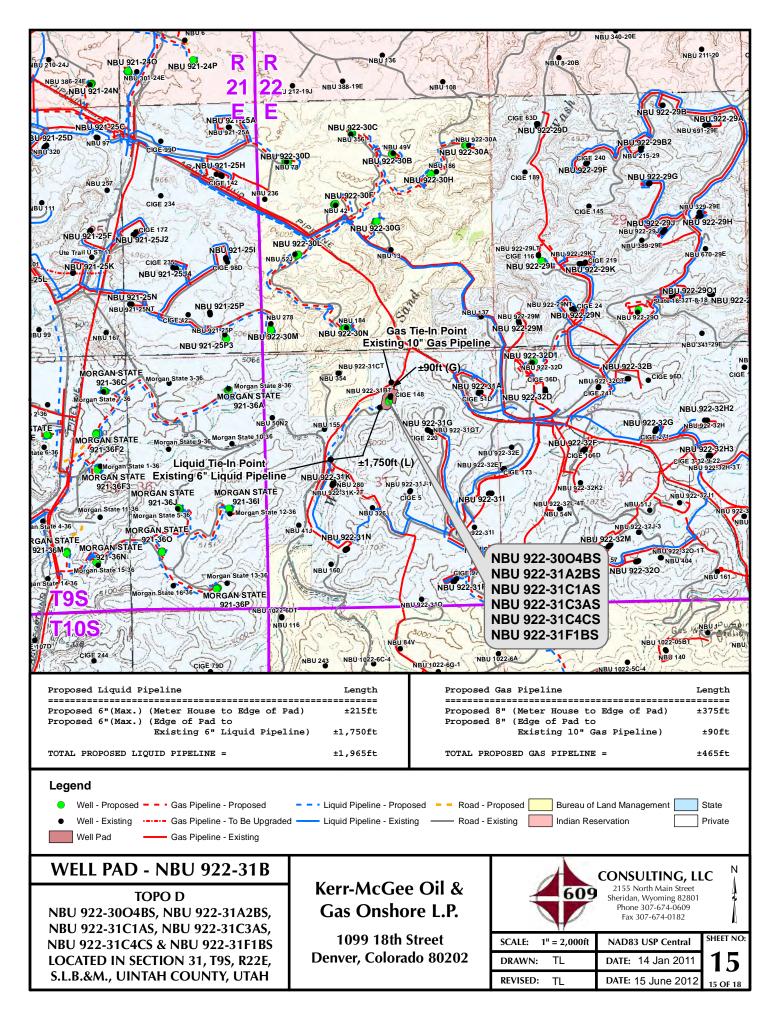
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

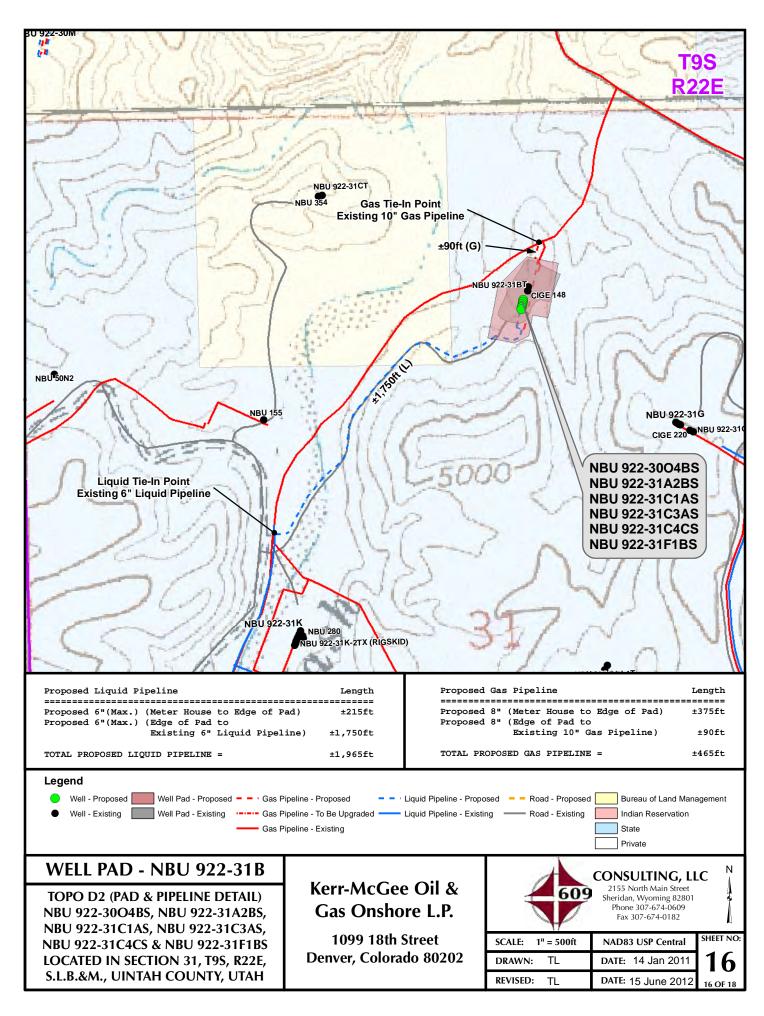
DATE PHOTOS TAKEN: 10-25-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 08-02-10	DRAWN BY: B.M.	11
Date Last Revised: 11-04-11 T.J.R.		11 OF 18

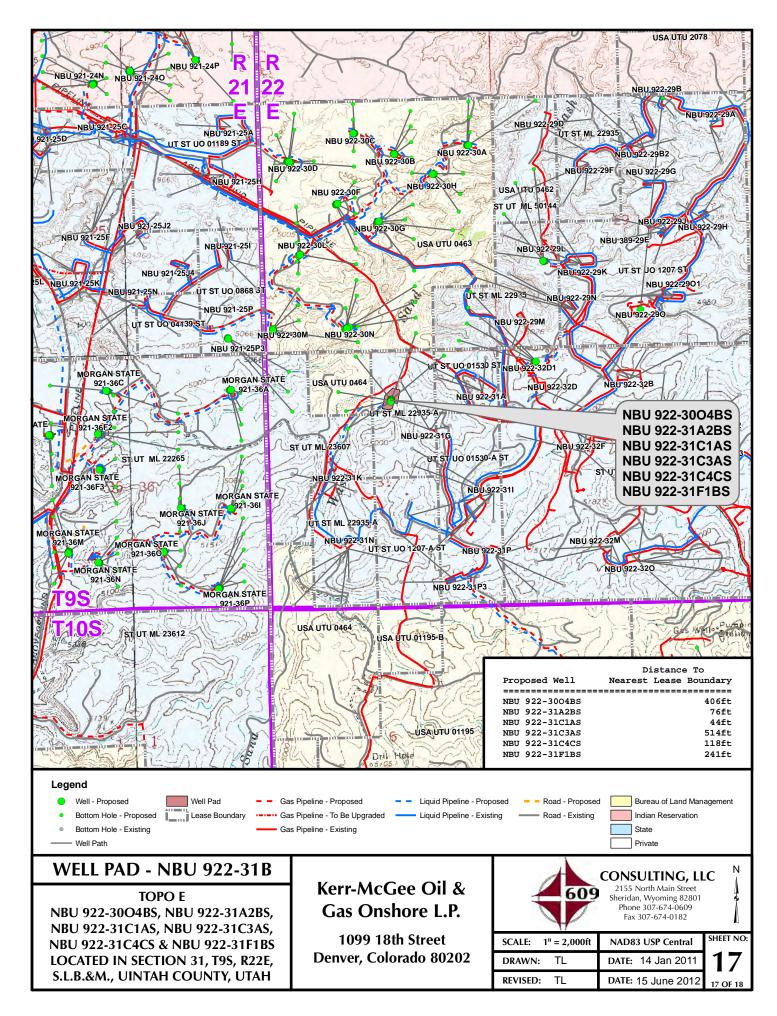












Kerr-McGee Oil & Gas Onshore, LP WELL PAD - NBU 922-31B WELLS – NBU 922-30O4BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS & NBU 922-31F1BS Section 31, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit right and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 1.5 miles to a service road to the southeast. Exit right and proceed in a southeasterly direction along the service road approximately 75 feet to a second service road to the northeast. Exit left and proceed in a northeasterly direction along the second service road approximately 0.4 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 44.2 miles in a southerly direction.

SHEET 18 OF 18

API Well Number: 4304752486600 Wintah County, UT UTM12

Scientific Drilling

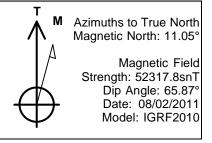
Rocky Mountain Operations

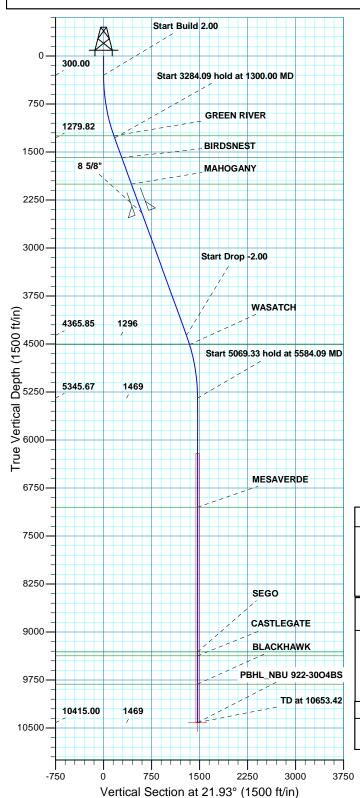
Site: NBU 922-31B PAD Well: NBU 922-3004BS

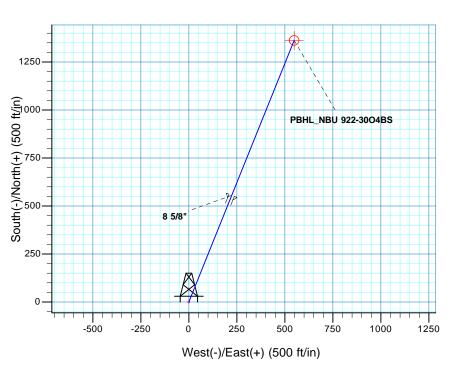
Wellbore: OH
Design: PLAN #2



WELL DETAILS: NBU 922-3004BS GL 4892 & KB 4 @ 4896.00ft (ASSUMED) Northing 14528641.40 Easting 2065986.00 Longitude -109.480520 +N/-S +E/-W Latittude 0.00 39.997170 DESIGN TARGET DETAILS +E/-W Easting 2066511.16 Longitude Shape TVD Northing Latitude PBHL 10415.00 1362.52 548.46 14530013.07 40.000911 -109.478562 Circle (Radius: 25.00 plan hits target center







				SECT	ION DETAIL	LS			
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	raiget
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	21.93	1279.82	160.27	64.51	2.00	21.93	172.77	
4584.09	20.00	21.93	4365.85	1202.25	483.95	0.00	0.00	1295.99	
5584.09	0.00	0.00	5345.67	1362.52	548.46	2.00	180.00	1468.76	
10653.42	0.00	0.00	10415.00	1362.52	548.46	0.00	0.00	1468.76	PBHL_NBU 922-30O4BS

	ı	FORMATION TOP	DETAILS	
PROJECT DETAILS: Uintah County, UT UTM12	TVDPath 1247.00	MDPath 1265.15	Formation GREEN RIVER	
Geodetic System: Universal Transverse Mercator (US Survey Feet)	1587.00	1205.15	BIRDSNEST	
Datum: NAD 1927 - Western US	2001.00	2067.47	MAHOGANY	
Ellipsoid: Clarke 1866	4509.00	4735.05	WASATCH	
Zone: Zone 12N (114 W to 108 W)	7050.00	7288.42	MESAVERDE	
Location: SECTION 31 T9S R22E	9311.00	9549.42	SEGO	
System Datum:Mean Sea Level	9373.00	9611.42	CASTLEGATE	
	9815.00	10053.42	BLACKHAWK	

CASING DETAILS

TVD MD Name Size 2451.00 2546.35 8 5/8" 8.625

Plan: PLAN #2 (NBU 922-3004BS/OH)

Created By: Gabe Kendall Date: 14:58, March 08 2012

RECEIVE



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-31B PAD NBU 922-3004BS

ОН

Plan: PLAN #2

Standard Planning Report

08 March, 2012



RECEIVED: April 17, 2012



SDIPlanning Report



Database: EDM 5000.1 Single User Db

Company: Kerr McGee Oil and Gas Onshore LP

 Project:
 Uintah County, UT UTM12

 Site:
 NBU 922-31B PAD

 Well:
 NBU 922-30O4BS

Wellbore: OH
Design: PLAN #2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-30O4BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED) GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

True

Minimum Curvature

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

 Geo Datum:
 NAD 1927 - Western US

 Map Zone:
 Zone 12N (114 W to 108 W)

Mean Sea Level

Site NBU 922-31B PAD, SECTION 31 T9S R22E

Northing: 14,528,641.40 usft Site Position: Latitude: 39.997170 From: Lat/Long Easting: 2,065,986.00 usft Longitude: -109.480520 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.98 13.200 in

System Datum:

Well NBU 922-30O4BS, 956 FNL 2220 FEL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,528,641.40 usft
 Latitude:
 39.997170

 +E/-W
 0.00 ft
 Easting:
 2,065,986.00 usft
 Longitude:
 -109.480520

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,892.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 08/02/11 11.05 65.87 52,318

PLAN #2 Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 21.93

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	21.93	1,279.82	160.27	64.51	2.00	2.00	0.00	21.93	
4,584.09	20.00	21.93	4,365.85	1,202.25	483.95	0.00	0.00	0.00	0.00	
5,584.09	0.00	0.00	5,345.67	1,362.52	548.46	2.00	-2.00	0.00	180.00	
10,653.42	0.00	0.00	10,415.00	1,362.52	548.46	0.00	0.00	0.00	0.00 F	PBHL_NBU 922-30O





EDM 5000.1 Single User Db Database: Company:

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-31B PAD Site: Well: NBU 922-30O4BS

Wellbore: ОН Design: PLAN #2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-30O4BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED) GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

True

Design:	PLAN #2								
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Start Build 2. 400.00	2.00	21.93	399.98	1.62	0.65	1.75	2.00	2.00	0.00
500.00 600.00 700.00 800.00 900.00	4.00 6.00 8.00 10.00 12.00	21.93 21.93 21.93 21.93 21.93	499.84 599.45 698.70 797.47 895.62	6.47 14.56 25.86 40.37 58.07	2.61 5.86 10.41 16.25 23.38	6.98 15.69 27.88 43.52 62.60	2.00 2.00 2.00 2.00 2.00	2.00 2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00
1,000.00 1,100.00 1,200.00 1,265.15	14.00 16.00 18.00 19.30	21.93 21.93 21.93 21.93	993.06 1,089.64 1,185.27 1,247.00	78.94 102.95 130.07 149.40	31.78 41.44 52.36 60.14	85.10 110.98 140.21 161.05	2.00 2.00 2.00 2.00	2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00
GREEN RIVE 1,300.00	20.00	21.93	1,279.82	160.27	64.51	172.77	2.00	2.00	0.00
1,400.00 1,500.00 1,600.00	20.00 20.00 20.00 20.00	21.93 21.93 21.93	1,373.78 1,467.75 1,561.72	192.00 223.73 255.45	77.29 90.06 102.83	206.97 241.17 275.37	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1,626.90 BIRDSNEST	20.00	21.93	1,587.00	263.99	106.27	284.57	0.00	0.00	0.00
1,700.00	20.00	21.93	1,655.69	287.18	115.60	309.58	0.00	0.00	0.00
1,800.00 1,900.00 2,000.00 2,067.47	20.00 20.00 20.00 20.00	21.93 21.93 21.93 21.93	1,749.66 1,843.63 1,937.60 2,001.00	318.91 350.64 382.37 403.77	128.37 141.14 153.92 162.53	343.78 377.98 412.18 435.26	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
MAHOGANY	20.00	21.00	2,0000		.02.00	.00.20	0.00	0.00	0.00
2,100.00	20.00	21.93	2,031.57	414.09	166.69	446.38	0.00	0.00	0.00
2,200.00 2,300.00 2,400.00 2,500.00 2,546.35 8 5/8"	20.00 20.00 20.00 20.00 20.00	21.93 21.93 21.93 21.93 21.93	2,125.54 2,219.51 2,313.48 2,407.45 2,451.00	445.82 477.55 509.28 541.01 555.71	179.46 192.23 205.00 217.77 223.69	480.59 514.79 548.99 583.19 599.04	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,600.00 2,700.00 2,800.00 2,900.00 3,000.00	20.00 20.00 20.00 20.00 20.00	21.93 21.93 21.93 21.93 21.93	2,501.42 2,595.39 2,689.35 2,783.32 2,877.29 2,971.26	572.73 604.46 636.19 667.92 699.65	230.55 243.32 256.09 268.86 281.63	617.39 651.60 685.80 720.00 754.20	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00
3,100.00 3,200.00 3,300.00 3,400.00 3,500.00	20.00 20.00 20.00 20.00 20.00	21.93 21.93 21.93 21.93 21.93	3,065.23 3,159.20 3,253.17 3,347.14	731.37 763.10 794.83 826.56 858.29	294.40 307.18 319.95 332.72 345.49	788.40 822.61 856.81 891.01 925.21	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
3,600.00 3,700.00 3,800.00 3,900.00 4,000.00	20.00 20.00 20.00 20.00 20.00	21.93 21.93 21.93 21.93 21.93	3,441.11 3,535.08 3,629.05 3,723.02 3,816.99	890.01 921.74 953.47 985.20 1,016.93	358.26 371.03 383.81 396.58 409.35	959.41 993.62 1,027.82 1,062.02 1,096.22	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
4,100.00 4,200.00	20.00 20.00	21.93 21.93	3,910.95 4,004.92	1,048.65 1,080.38	422.12 434.89	1,130.42 1,164.63	0.00 0.00	0.00 0.00	0.00 0.00





Database: Company:

Site:

EDM 5000.1 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-31B PAD

Well: NBU 922-30O4BS

Wellbore: ОН PI AN #2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-30O4BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED) GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

True

Design:	PLAN #2								
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,300.00	20.00	21.93	4,098.89	1,112.11	447.66	1,198.83	0.00	0.00	0.00
4,400.00		21.93	4,192.86	1,143.84	460.44	1,233.03	0.00	0.00	0.00
4,500.00	20.00	21.93	4,286.83	1,175.56	473.21	1,267.23	0.00	0.00	0.00
4,584.09	20.00	21.93	4,365.85	1,202.25	483.95	1,295.99	0.00	0.00	0.00
Start Drop			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,		.,			
4,600.00		21.93	4,380.82	1,207.25	485.96	1,301.39	2.00	-2.00	0.00
4,700.00		21.93	4,475.54	1,236.97	497.92	1,333.42	2.00	-2.00	0.00
4,735.05		21.93	4,509.00	1,246.65	501.82	1,343.86	2.00	-2.00	0.00
WASATCH			,	,		,,			
4,800.00		21.93	4,571.33	1,263.59	508.64	1,362.13	2.00	-2.00	0.00
4,900.00		21.93	4,668.06	1,287.11	518.11	1,387.47	2.00	-2.00	0.00
5,000.00		21.93	4,765.61	1,307.47	526.30	1,409.42	2.00	-2.00	0.00
5,100.00		21.93	4,863.88 4,962.73	1,324.66 1,338.67	533.23 538.86	1,427.96	2.00	-2.00 -2.00	0.00
5,200.00		21.93		1,338.67		1,443.05	2.00		0.00
5,300.00		21.93	5,062.04	•	543.21	1,454.69	2.00	-2.00	0.00
5,400.00		21.93	5,161.70	1,357.03	546.25	1,462.85	2.00	-2.00	0.00
5,500.00		21.93	5,261.59	1,361.37	548.00	1,467.53	2.00	-2.00	0.00
5,584.09	0.00	0.00	5,345.67	1,362.52	548.46	1,468.76	2.00	-2.00	0.00
Start 5069.	33 hold at 5584.09	MD							
5,600.00		0.00	5,361.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
5,700.00	0.00	0.00	5,461.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
5,800.00	0.00	0.00	5,561.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
5,900.00		0.00	5,661.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,000.00		0.00	5,761.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,100.00	0.00	0.00	5,861.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,200.00	0.00	0.00	5,961.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,300.00	0.00	0.00	6,061.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,400.00		0.00	6,161.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,500.00		0.00	6,261.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,600.00		0.00	6,361.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,700.00	0.00	0.00	6,461.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,800.00	0.00	0.00	6,561.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
6,900.00		0.00	6,661.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
7,000.00		0.00	6,761.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
7,100.00		0.00	6,861.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
7,200.00		0.00	6,961.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
		0.00	7,050.00	1,362.52	548.46		0.00	0.00	0.00
7,288.42		0.00	1,050.00	1,302.52	046.40	1,468.76	0.00	0.00	0.00
MESAVER		0.00	7.004.50	1 262 52	E40.40	1 460 70	0.00	0.00	0.00
7,300.00		0.00	7,061.58	1,362.52	548.46 548.46	1,468.76	0.00	0.00	0.00
7,400.00 7,500.00		0.00 0.00	7,161.58 7,261.58	1,362.52 1,362.52	548.46 548.46	1,468.76 1,468.76	0.00 0.00	0.00 0.00	0.00 0.00
7,500.00 7,600.00		0.00	7,261.58 7,361.58	1,362.52	548.46 548.46	1,468.76	0.00	0.00	0.00
7,700.00		0.00	7,461.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
7,800.00		0.00	7,561.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
7,900.00		0.00	7,661.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,000.00		0.00	7,761.58	1,362.52	548.46 548.46	1,468.76	0.00	0.00	0.00
8,100.00	0.00	0.00	7,861.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,200.00		0.00	7,961.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,300.00		0.00	8,061.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,400.00		0.00	8,161.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,500.00		0.00	8,261.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,600.00	0.00	0.00	8,361.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
8,700.00	0.00	0.00	8,461.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
	2.20		-,	,		, , ,			





Database: Company: EDM 5000.1 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 922-31B PAD

 Well:
 NBU 922-3004BS

 Wellbore:
 OH

 Design:
 PLAN #2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-30O4BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED) GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

True

Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	8,561.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	8,661.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	8,761.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	8,861.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	8,961.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,061.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,161.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,261.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,311.00	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,361.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,373.00	1,362.52	548.46	1,468.76	0.00	0.00	0.00
E								
0.00	0.00	9,461.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,561.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,661.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,761.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,815.00	1,362.52	548.46	1,468.76	0.00	0.00	0.00
(
0.00	0.00	9,861.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	9,961.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	10,061.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	10,161.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	10,261.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
0.00	0.00	10,361.58	1,362.52	548.46	1,468.76	0.00	0.00	0.00
	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	(°) (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Inclination (°)	Inclination	Inclination	No.	No.	No. No.

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30O4B - plan hits target cent - Circle (radius 25.00		0.00	10,415.00	1,362.52	548.46	14,530,013.07	2,066,511.15	40.000911	-109.478562

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,546.35	2,451.00	8 5/8"	8.625	11.000





Database: Company: EDM 5000.1 Single User Db

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Well:

Uintah County, UT UTM12

NBU 922-31B PAD NBU 922-3004BS

Wellbore: OH
Design: PLAN #2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-30O4BS

GL 4892 & KB 4 @ 4896.00ft (ASSUMED) GL 4892 & KB 4 @ 4896.00ft (ASSUMED)

True

ormations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,265.15	1,247.00	GREEN RIVER				
	1,626.90	1,587.00	BIRDSNEST				
	2,067.47	2,001.00	MAHOGANY				
	4,735.05	4,509.00	WASATCH				
	7,288.42	7,050.00	MESAVERDE				
	9,549.42	9,311.00	SEGO				
	9,611.42	9,373.00	CASTLEGATE				
	10,053.42	9,815.00	BLACKHAWK				

Plan Annotations						
Measured	Vertical	Local Coor	dinates			
Depth	Depth	+N/-S	+E/-W			
(ft)	(ft)	(ft)	(ft)	Comment		
300.00	300.00	0.00	0.00	Start Build 2.00		
1,300.00	1,279.82	160.27	64.51	Start 3284.09 hold at 1300.00 MD		
4,584.09	4,365.85	1,202.25	483.95	Start Drop -2.00		
5,584.09	5,345.67	1,362.52	548.46	Start 5069.33 hold at 5584.09 MD		
10,653.42	10,415.00	1,362.52	548.46	TD at 10653.42		

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-31B PAD

<u>API #</u>		NBU 922-30O4BS		
	Surface:	956 FNL / 2220 FEL	NWNE	Lot
Mineral Lease #UTU-463	BHL:	406 FSL / 1670 FEL	SWSE	Lot
API #		NBU 922-31A2BS		
	Surface:	965 FNL / 2222 FEL	NWNE	Lot
Mineral Lease #ST UT UO 01530 ST	BHL:	76 FNL / 1100 FEL	NENE	Lot
API #4304751086		NBU 922-31C1AS		
	Surface:	975 FNL / 2224 FEL	NWNE	Lot
Mineral Lease #UTU-464	BHL:	44 FNL / 1927 FWL	NENW	Lot
API #4304751087		NBU 922-31C3AS		
	Surface:	985 FNL / 2226 FEL	NWNE	Lot
Mineral Lease #UTU-464	BHL:	784 FNL / 1551 FWL	NENW	Lot
API #4304751088		NBU 922-31C4CS		
	Surface:	995 FNL / 2228 FEL	NWNE	Lot
Mineral Lease #UTU-464	BHL:	1181 FNL / 1701 FWL	NENW	Lot
API #4304751092		NBU 922-31F1BS		
<u></u>	Surface:	1004 FNL / 2230 FEL	NWNE	Lot
Mineral Lease #ST UT ML-23607	BHL:	1540 FNL / 1728 FWL	SENW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

2 of 13

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

No new access road is proposed. Please see Topo B

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 922-31BT, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on April 11, 2012. The CIGE 148 has been plugged and abandoned since December 23, 2008. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is ± 465 ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±375' (0.1 miles) Section 31 T9S R22E (NW/4 NE/4) On-lease UT ST ML-22935-A, SITLA surface, New 8" surface gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±90' (0.01 miles) Section 31 T9S R22E (NW/4 NE/4) On-lease UT ST ML-22935-A, SITLA surface, New 8" surface gas gathering pipeline from the edge of the pad to the tie-in at the existing 10" surface gas gathering pipeline. Please refer to Topo D2.

LIQUID GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,965$ ° and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±215' (0.04 miles) Section 31 T9S R22E (NW/4 NE/4) On-lease UT ST ML-22935-A, SITLA surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,750' (0.4 miles) Section 31 T9S R22E (NW/4 NE/4) On-lease UT ST ML-22935-A, SITLA surface and UTU-464, BLM surface, New 6" buried liquid gathering pipeline from the south edge of the pad and traveling southwest to tie-in to the existing buried liquid gathering line at SE/4 NW/4 of Section 31. Please refer to Topo D & D2.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie

Surface Use Plan of Operations 4 of 13

on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for

ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches

6/21/2012

where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	Pure Live Seed lbs/acre
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5
Crested wheatgrass	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 - 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

6/21/2012

NBU 922-3004BS/ NBU 922-31A2BS/ NBU 922-31C1AS/ NBU 922-31C3AS/ NBU 922-31C4CS/ NBU 922-31F1BS

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102 (801) 538-5100 United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435) 781-4400

L. Other Information:

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed on December 14, 2011 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-403

A paleontological reconnaissance survey was completed on November 11, 2011 by Intermountain Paleo-Consulting. For additional details please refer to report IPC 11-210.

Biological field survey was completed on November 15, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-646.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year) ¹				
Pollutant	Development	Production	Total	
NOx	3.8	0.12	3.92	
CO	2.2	0.11	2.31	
VOC	0.1	10.94	11.04	
SO ₂	0.005	0.00	0.01	
PM_{10}	1.7	0.11	1.81	
PM _{2.5}	0.4	0.03	0.43	
Benzene	2.2E-03	0.08	0.09	
Toluene	1.6E-03	0.13	0.14	
Ethylbenzene	3.4E-04	0.00	0.00	
Xylene	1.1E-03	0.06	0.06	
n-Hexane	1.7E-04	0.34	0.34	
Formaldehyde	1.3E-02	8.64E-05	1.31E-02	

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2:	Proposed Action versus 201 Inventory Com		I Emissions
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory ^a (ton/yr)	to WRAP Phase
NOx	23.52	16,547	0.14%
VOC	66.25734	127,495	0.05%

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

NBU 922-30O4BS/ NBU 922-31A2BS/ NBU 922-31C1AS/ NBU 922-31C3AS/ NBU 922-31C4CS/ NBU 922-31F1BS

Surface Use Plan of Operations 13 of 13

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Senior Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

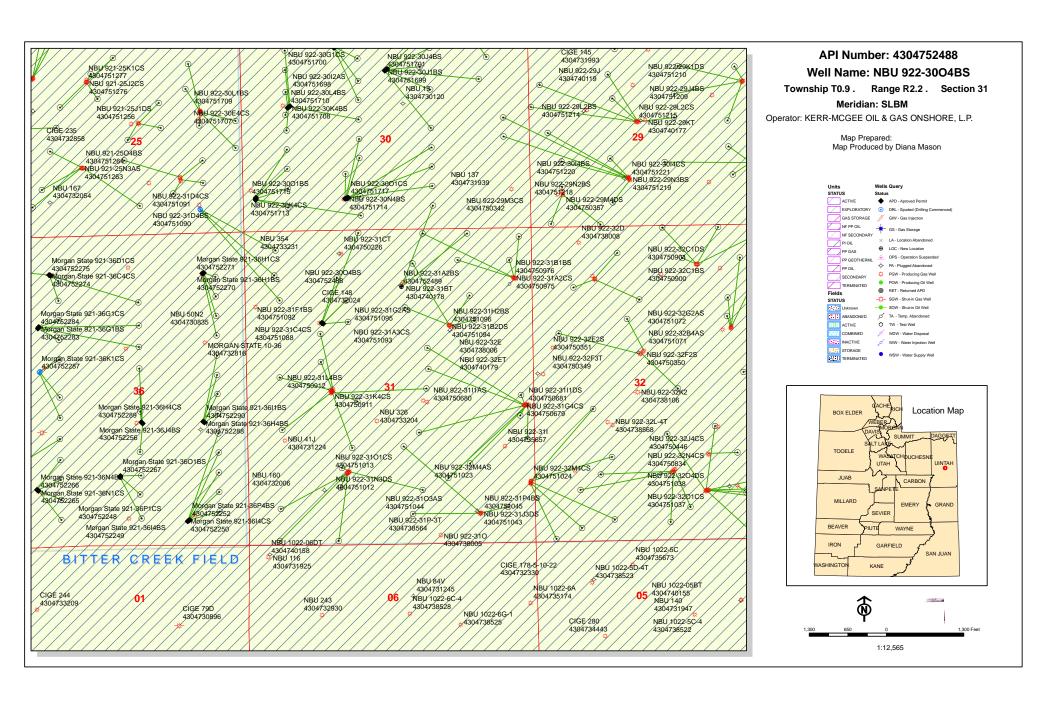
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T.Becker

June 21, 2012

Date



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT - 922)

April 24, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

Well Pad NBU 922-31B 43-047-52488 NBU 922-3004BS Sec 31 T09S R22E 0956 FNL 2220 FEL BHL Sec 30 T09S R22E 0406 FSL 1670 FEL

43-047-52489 NBU 922-31A2BS Sec 31 T09S R22E 0965 FNL 2222 FEL BHL Sec 31 T09S R22E 0076 FNL 1100 FEL

Well Pad NBU 921-7J 43-047-52514 NBU 921-7J Sec 07 T09S R21E 2211 FSL 2441 FEL

This office has no other objection to permitting the wells at this time.

Michael L. Coulthard

Dic cn-Michael L Coulthard, o-Bureau of Land Management, outbrand of Michael L Coulthard, o-Bureau of Land Management, outbrand or Milensia, small-Michael L Coulthardeblim.gov, ceUS

Date: 2012.04.24 10.29:56-06'00'

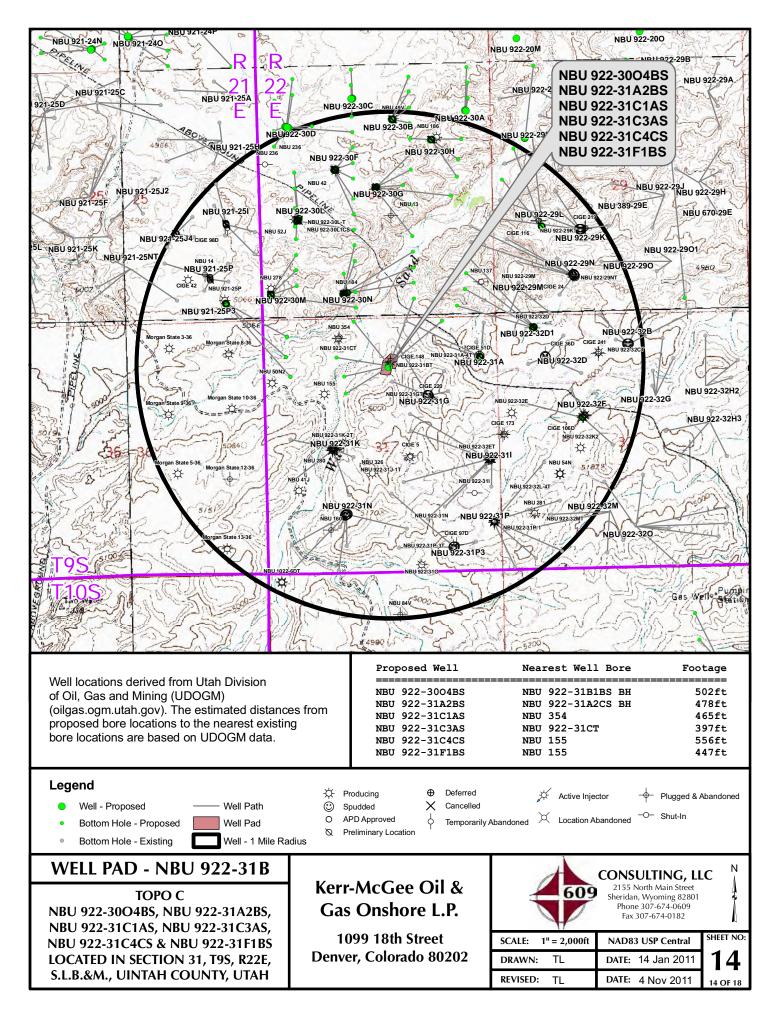
bcc: File - Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:4-24-12

RECEIVED: April 24, 2012



API Well Number: 43047524**8ആളി** Uintah County, UT UTM12 Site: NBU 922-31B PAD

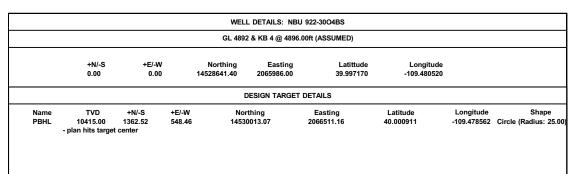
Scientific Drilling

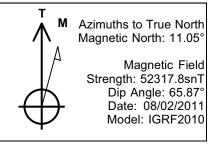
Rocky Mountain Operations

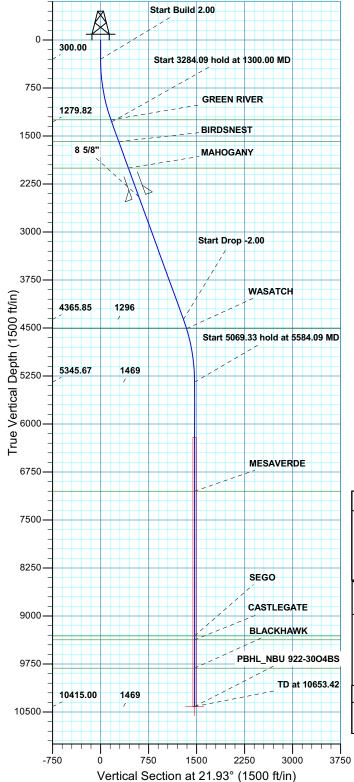
Well: NBU 922-3004BS Wellbore: OH

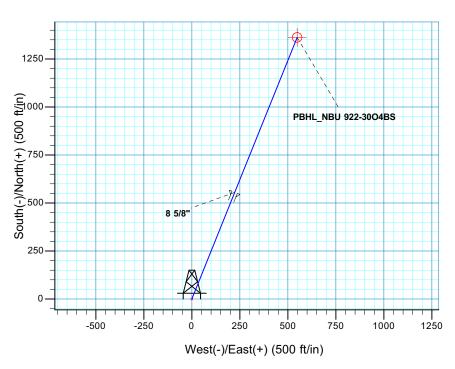
Wellbore: OH Design: PLAN #2











MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	raiget
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	21.93	1279.82	160.27	64.51	2.00	21.93	172.77	
4584.09	20.00	21.93	4365.85	1202.25	483.95	0.00	0.00	1295.99	
5584.09	0.00	0.00	5345.67	1362.52	548.46	2.00	180.00	1468.76	
10653.42	0.00	0.00	10415.00	1362.52	548.46	0.00	0.00	1468.76	PBHL_NBU 922-30O4BS

	I	FORMATION TOP	DETAILS
PROJECT DETAILS: Uintah County, UT UTM12	TVDPath	MDPath	Formation
Goodetic System: III-1	1247.00	1265.15	GREEN RIVER
Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 - Western US	1587.00	1626.90	BIRDSNEST
	2001.00	2067.47	MAHOGANY
Ellipsoid: Clarke 1866	4509.00	4735.05	WASATCH
Zone: Zone 12N (114 W to 108 W)	7050.00	7288.42	MESAVERDE
Location: SECTION 31 T9S R22E	9311.00	9549.42	SEGO
System Datum: Mean Sea Level	9373.00	9611.42	CASTLEGATE
•	9815.00	10053.42	BLACKHAWK

CASING DETAILS

TVD MD Name Size 2451.00 2546.35 8 5/8" 8.625

Plan: PLAN #2 (NBU 922-3004BS/OH)

RECEI**Received:** GA prii 147; 14204 228 2012

API Well Number: 4304752486000 Wintah County, UT UTM12

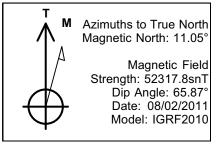
Scientific Drilling
Rocky Mountain Operations

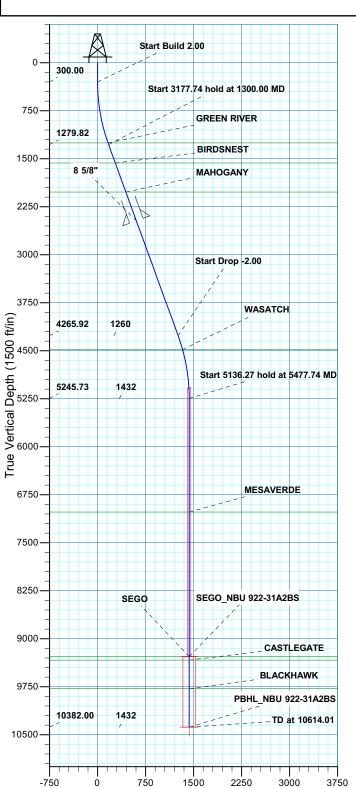
Site: NBU 922-31B PAD Well: NBU 922-31A2BS

Wellbore: OH
Design: PLAN #2

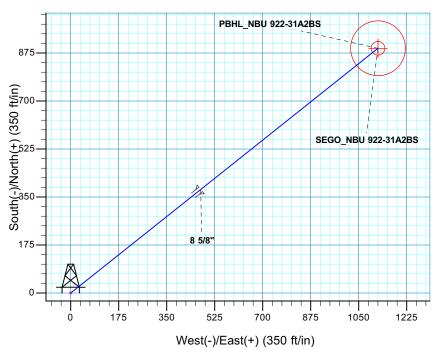


WELL DETAILS: NBU 922-31A2BS GL 4892 & KB 4 @ 4896.00ft (ASSUMED) Northing 14528631.53 Easting 2065983.93 Longitude -109.480528 +N/-S +E/-W Latittude 0.00 DESIGN TARGET DETAILS +E/-W Northing Latitude SEGO 9280.00 892.34 1120.48 14529542.84 2067089.03 39.999593 -109.476528 Circle (Radius: 25.00) plan hits tar center 892.34 PBHL 14529542 84 2067089.03 39 999593 -109.476528 Circle (Radius: 100.00 10382 00 1120.48





Vertical Section at 51.47° (1500 ft/in)



				SEC	TION D	ETAILS			
MD 0.00	Inc 0.00	Azi 0.00	TVD 0.00	+N/-S 0.00	+E/ 0	-W Dleg		VSect 0.00	Target
300.00	0.00	0.00	300.00	0.00	Ō	.00 0.00	0.00	0.00	
1300.00	20.00	51.47	1279.82	107.63	135	.15 2.00	51.47	172.77	
4477.74	20.00	51.47	4265.92	784.71	985	.33 0.00		1259.62	
5477.74	0.00		5245.73	892.34	1120			1432.39	DD111 ND11 000 0440D0
10614.01	0.00	0.00	10382.00	892.34	1120	.48 0.00	0.00	1432.39	PBHL_NBU 922-31A2BS
FORMATION TOP DETAILS									
PROJECT DETAILS: Uintah County, UT UTM12						TVDPath	N	/IDPath	Formation
						1253.00	1	271.51	GREEN RIVER
Geodetic System: Universa				S Survey	Feet)	1567.00	1	605.62	BIRDSNEST
Datum: NAD 192		tern US				2021.00	- 2	2088.75	MAHOGANY
Ellipsoid: Clarke 1		400	140			4482.00	4	1704.66	WASATCH
Zone: Zone 12			VV)			7020.00	7	252.01	MESAVERDE
2004110111 020110		S RZZE				9280.00	9	512.01	SEGO
System Datum: Mean Se	a Level					9335.00	9	567.01	CASTLEGATE
						9782.00	10	014.01	BLACKHAWK
				CAS	ING DI	ETAILS			
-			TVD		MD	Nam	e Size		-
			2471.00	2567	7.63	8 5/8	8.625	5	

From: Jim Davis

To: APD APPROVAL Becker Gina

Date: 8/20/2012 12:34 PM

Subject: APD approvals NBU 922-31B pad

The following wells have been approved by SITLA under the following condition. Paleo clearance is granted on the condition that, as the paleo survey report recommends, paleo monitoring be conducted on all ground-disturbing activities. Arch clearance is granted.

NBU 922-31A2BS (4304752489) NBU 922-30O4BS (4304752488)

Thanks.
-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name NBU 922-30O4BS

API Number 43047524880000 APD No 5608 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NWNE Sec 31 Tw 9.0S Rng 22.0E 956 FNL 2220 FEL

GPS Coord (UTM) 629655 4428536 Surface Owner

Participants

Jaime Scharnowske, Gina Becker, Cara Mahler, Doyle Holmes, (Anadarko). Mitch Batty, (Timberline). Jim Davis (SITLA), David Hackford, (DOGM). Tyler Cox, David Gordon, Aaron Roe, (BLM).

Regional/Local Setting & Topography

The general area is in the Natural Buttes Unit on the east slope of the Sand Wash drainage of Uintah, County

approximately 44.2 miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the general area is characterized by wide drainage bottoms and open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the area. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. Also, no springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock. The bottom of Sand Wash is 1000' to the northwest. The White River is two miles to the northeast.

The existing pad of the producing NBU 922-31BT gas well will be slightly enlarged to add six wells that will be

directionally drilled. They are the NBU 922-3004BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS, and the NBU 922-31F1BS. Kerr McGee representatives at the pre-site did not know the future of the existing well. The reserve pit will be on the east side of the location. No stability concerns were noted with the existing pad. The selected site appears to be an acceptable site for constructing a pad, drilling and operating the additional wells.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 287 Length 405 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation includes black sagebrush, bud sage, horsebrush, halogeton, curly mesquite, shadscale, cheatgrass, broom snakeweed, rabbit brush and spring annuals.

Antelope, coyote, small mammals and birds. Endangered fish species exist in the White River. Domestic sheep graze the area in the winter.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran	king	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the east side of the location. Dimensions are 260' x 79' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Of the additional six wells proposed for this location, four will be directionally drilled into Federal minerals. These are the NBU 922-30O4BS, NBU 922-31C1AS, NBU 922-31C4CS, and the NBU 922-31F1BS.

David Hackford **Evaluator**

5/23/2012 **Date / Time**

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner CBM
5608	43047524880000	LOCKED	GW	S No
Operator	KERR-MCGEE OIL & G	AS ONSHORE, L.P.	Surface Owner-AP	PD
Well Name	NBU 922-30O4BS		Unit	NATURAL BUTTES
Field	NATURAL BUTTES		Type of Work	DRILL
Location	NWNE 31 9S 22E	S 956 FNL 22	20 FEL GPS Coord	
Location	(UTM) 629660E 44	-28551N		

Geologic Statement of Basis

Kerr McGee proposes to set 2,450' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,300'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of section 31. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect ground water in this area.

Brad Hill 11/1/2012
APD Evaluator Date / Time

Surface Statement of Basis

The general area is in the Natural Buttes Unit of Uintah County, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the general area is characterized by wide drainage bottoms and open flats bordered or dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the area. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. Also, no springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The existing pad of the producing NBU 922-31BT gas well will be slightly enlarged to add six wells that will be directionally drilled. They are the NBU 922-30O4BS, NBU 922-31A2BS, NBU 922-31C1AS, NBU 922-31C3AS, NBU 922-31C4CS, and the NBU 922-31F1BS. Kerr McGee representatives at the pre-site did not know the future of the existing well. The White River is approximately 2 miles to the northeast. No stability concerns were noted with the existing pad. The selected site appears to be an acceptable site for constructing a pad, drilling and operating the additional wells.

New construction will amount to 60" or less on all sides of the existing location. Reserve pit will be constructed in the same area as the reserve pit for the original location.

Jim Davis of SITLA and Ben Williams of DWR were invited to the pre-site evaluation. Jim Davis attended and had no concerns regarding the drilling of these wells or the enlargement of the location.

David Hackford 5/23/2012
Onsite Evaluator Date / Time

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Pits The reserve pit should be located on the east side of the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/17/2012 API NO. ASSIGNED: 43047524880000

WELL NAME: NBU 922-30O4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: NWNE 31 090S 220E Permit Tech Review:

> SURFACE: 0956 FNL 2220 FEL **Engineering Review:**

> **BOTTOM: 0406 FSL 1670 FEL Geology Review:**

COUNTY: UINTAH

LATITUDE: 39.99720 LONGITUDE: -109.48111 **UTM SURF EASTINGS: 629660.00** NORTHINGS: 4428551.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE **LEASE NUMBER: UTU-463**

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting Fee Surface Agreement

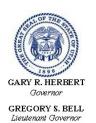
Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-3004BS API Well Number: 43047524880000

Lease Number: UTU-463 Surface Owner: STATE Approval Date: 11/8/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available) OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

APR 2 0 2012

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPRO	VEL
OMB No. 1004	-013
Expires July 31,	201

BORDAO OF LAND		5. Lease Serial No.	
VI, Vernæhldafiðn for permit		UTU463	
71, 4 OF TAPPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe	e Name
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreement, UTU63047A	Name and No.
		8. Lease Name and Well No.	
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Ot	Z man Zone Z manpie Zone	NBU 922-3004BS	•
2. Name of Operator Contact: KERR-MCGEE OIL & GAS ONSHORMEail: GINA.B	GINA T BECKER ECKER@ANADARKO.COM	9. API Well No.	110Ī
3a. Address P.O. BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6086 Fx: 720-929-7086	10. Field and Pool, or Explor NATURAL BUTTES	atory
4. Location of Well (Report location clearly and in accorded	nnce with any State requirements.*)	11. Sec., T., R., M., or Blk. a	nd Survey or Area
At surface NWNE 956FNL 2220FEL :	39.997135 N Lat, 109.481205 W Lon	Sec 31 T09S R22E M	-
At proposed prod. zone SWSE 406FSL 1670FEL 4			.0. 025
 Distance in miles and direction from nearest town or post APPROXIMATELY 44 MILES SOUTHEAST OF 	office* VERNAL, UTAH	12. County or Parish UINTAH	13. State UT
 Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of Acres in Lease	17. Spacing Unit dedicated to	this well
406	551.44	·	
 Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth	20. BLM/BIA Bond No. on f	ile
502	10653 MD 10415 TVD	WYB000291)
21. Elevations (Show whether DF, KB, RT, GL, etc. 4892 GL	22. Approximate date work will start 07/13/2012	23. Estimated duration 60-90 DAYS	EULIVED
	24. Attachments		B 1 3 2013
ne following, completed in accordance with the requirements o	f Onshore Oil and Gas Order No. 1, shall be attached to	this form: DIV. OF	OIL, GAS & MINING
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Off	em Lands, the 5. Operator certification	ons unless covered by an existing	bond on file (see
25. Signature	Name (Printed/Typed)		Date

REGULATORY ANALYST II

Name (Printed/Typed)

Jerry Kenczka

Dat AN 2 2 2015

Assistant Field Manager Lands & Mineral Resources

Office

VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #135617 verified by the BLM Well Information System For KERR-MCGEE OIL & GAS ONSHORE, sent to the Vernal

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

115X5(157(1)15_

NKF 3/25



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No: Kerr McGee Oil & Gas Onshore

NBU 922-3004BS

43-047-52488

Location: Lease No: NWNE, Sec. 31, T9S, R22E

se No: UTU-463

Agreement:

Natural Buttes

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 6 Well: NBU 922-3004BS 1/24/2013

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.

NO Site Specific COA's due to well being on state surface.

Page 3 of 6 Well: NBU 922-3004BS 1/24/2013

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Surface casing cement shall be brought to surface.
- Production casing cement shall be brought 200' up and into the surface casing.
- Electronic/mechanical mud monitoring equipment shall be required, from surface casing shoe to TD, which shall include as a minimum: pit volume totalizer (PVT); stroke counter; and flow sensor.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.

Page 4 of 6 Well: NBU 922-3004BS 1/24/2013

• The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well by CD (compact disc).
 This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 5 of 6 Well: NBU 922-3004BS 1/24/2013

OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - o Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 6 of 6 Well: NBU 922-30O4BS 1/24/2013

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
 the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
 All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
 product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
 accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 41170 API Well Number: 43047524880000

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-463
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-3004BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	SHORE, L.P.		9. API NUMBER: 43047524880000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 17 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0956 FNL 2220 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 31 Township: 09.0S Range: 22.0E Mer	ridian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
8/7/2013	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:		☐ SITA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
Spud well 08/07/2 conductor hole to cement with 28 sa su	COMPLETED OPERATIONS. Clearly show 2013 @ 08:30. MIRU Triple of 40', run 14", 36.7# scheducks ready mix. Anticipated urface casing cement 08/10	A Bucket Rig, drill 20" ule 10 conductor pipe, surface spud date and 0/2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 09, 2013
NAME (PLEASE PRINT) Doreen Green	PHONE NUM 435 781-9758	BER TITLE Regulatory Analyst II	
SIGNATURE		DATE	
N/A		8/9/2013	

Sundry Number: 43331 API Well Number: 43047524880000

	FORM 9						
I	es NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-463					
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
	posals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-3004BS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047524880000				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0956 FNL 2220 FEL			COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNE Section: 3	IIP, RANGE, MERIDIAN: 31 Township: 09.0S Range: 22.0E Merid	ian: S	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION		TYPE OF ACTION					
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION COMPLETED OPERATIONS. Clearly show all Stivity Since last report. Well		CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: Depths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 07, 2013				
NAME (PLEASE PRINT)	PHONE NUMBE	R TITLE					
Teena Paulo	720 929-6236	Staff Regulatory Specialist					
SIGNATURE N/A		DATE 10/4/2013					

Sundry Number: 46377 API Well Number: 43047524880000

	FORM 9							
ī	es NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-463						
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:							
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly dreenter plugged wells, or to drill horizon n for such proposals.	eepen existing wells below tal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30O4BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047524880000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0956 FNL 2220 FEL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNE Section: 3	IIP, RANGE, MERIDIAN: 31 Township: 09.0S Range: 22.0E Merid	ian: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
1/2/2014								
	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
	COMPLETED OPERATIONS. Clearly show all to 9,615 ft. TD in Quarter 4	•	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 03, 2014					
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBE 720 929 6582	R TITLE Regulatory Analyst						
SIGNATURE N/A		DATE 1/2/2014						

RECEIVED: Jan. 02, 2014

Sundry Number: 49212 API Well Number: 43047524880000

	FORM 9							
ı	3	5.LEASE DESIGNATION AND SERIAL NUMBER UTU-463						
SUNDR	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 922-3004BS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047524880000				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 802		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0956 FNL 2220 FEL				COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 31 Township: 09.0S Range: 22.0E Me	eridian:	S	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA				
TYPE OF SUBMISSION			TYPE OF ACTION					
	ACIDIZE		ALTER CASING	CASING REPAIR				
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME				
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ г	RACTURE TREAT	☐ NEW CONSTRUCTION				
3/25/2014	OPERATOR CHANGE	П	PLUG AND ABANDON	PLUG BACK				
SPUD REPORT	✓ PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION				
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON				
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL				
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION				
Report Date.			I TA STATUS EXTENSION					
	WILDCAT WELL DETERMINATION		OTHER	OTHER:				
The NBU 922-300	COMPLETED OPERATIONS. Clearly show	ction	03/25/2014 after a	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 26, 2014				
NAME (PLEASE PRINT) Doreen Green	PHONE NUN 435 781-9758	MBER	TITLE Regulatory Analyst II					
SIGNATURE N/A			DATE 3/26/2014					

Sundry Number: 50015 API Well Number: 43047524880000

Form 3160-4 (August 2007)	CITIED STITIES											FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010		
WELL COMPLETION OR RECOMPLETION REPORT AND LOG											5. Lease Serial No. UTU463			
												ottee or	Tribe Name	
b. Type of Completion New Well												nit or CA A		nt Name and No.
Name of Operator Contact: ILA BEALE KERR-MCGEE OIL AND GAS ONSH@RMail: Ila.Beale@anadarko.com												ease Name a	and Wel	
3. Address P.O. BOX 173779 3a. Phone No. (include area code) 9. API Well No.														
DENVER, CO 82017 Ph. 720-929-6000 43-047-524 4. Location of Well (Report location clearly and in accordance with Federal requirements)* 10. Field and Pool, or Exploratory												xploratory		
At surfa	ce NWNE	956FNL	. 2220FEL 3	9.997135	N Lat, 109	.481205	W Lon					IATURAL E Sec T R		S Block and Survey
At top p	rod interval r	eported b	elow SWS	SE 415FSL	1676FEL						0		31 T9	S R22E Mer SLB
At total	1	SE 395F	SL 1682FE	L							l	IINTÁH		UT
14. Date Sp 08/07/2				ate T.D. Rea /19/2013	ached		□ D &	e Complet : A 🛮 25/2014	ed Ready to	Prod.	17. I	Elevations (I 491	DF, KB 6 KB	, RT, GL)*
18. Total D	epth:	MD TVD	9615 9350	19	. Plug Bacl	k T.D.:	MD TVD		50 86	20. De	pth Bri	dge Plug Se		MD VD
21. Type E RADIAI	lectric & Oth L CBL/GR/C	er Mecha CCL/TEM	nical Logs R P	un (Submit	copy of eac	eh)			l Wa	s well core as DST run: rectional Su	?	⊠ No i	Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	rt all strings			1				T				
Hole Size	Size/G		Wt. (#/ft.)	Top (MD)	Botton (MD)	1	Cemente Depth		of Sks. & of Cemen	 		Cement 7	Гор*	Amount Pulled
20.000 11.000	1	000 STL 325 J-55	36.7 28.0	2		40 86		+		28 30		0		
7.875	1	500 I-80	11.6	2		97				25		1827		
24. Tubing	Record					'		1		_		l		
Size 2.375	Depth Set (N		acker Depth	(MD)	Size D	epth Set (MD)	Packer De	pth (MD)	Size	De	epth Set (MI) F	Packer Depth (MD)
25. Producii		8956				26. Perfor	ation Rec	ord						
Fo	ormation		Тор	В	ottom]	Perforated			Size	1	No. Holes		Perf. Status
A)	MESAVE	RDE		7465	9365			7465 T	O 9365	0.4	10	207	OPEN	<u> </u>
B) C)														
D)														
	racture, Treat		nent Squeeze	e, Etc.										
]	Depth Interva	ıl 65 TO 93	RES PLIMP 9	0,835 BBLS	SLICKWAT	FR 54 RP		CID AND			AND			
		00 10 30	505 1 51111 6	,,000 BBLO	<u>OLIOIWI (1</u>	LIX, 0 1 BE	10707	101271112	100,000 E	.50 00/00 0	71112			
20 Decdust	ion Intomvol	Α												
Date First	ion - Interval	Hours	Test	Oil	Gas	Water	Oil C	ravity	Gas		Product	ion Method		
Produced 03/25/2014	Date 03/28/2014	Tested 24	Production	BBL 0.0	MCF 1948.0	BBL 0.0				vity		FLOV	/S FRO	M WELL
Choke Size	Tbg. Press. Flwg. 1497	Csg.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:0		We	ll Status				
20/64	SI	2216.0		- O 1948 0 PGW										
28a. Produc	tion - Interva	1 B Hours	Test	Oil	Gas	Water	loac	Gravity	Gas		Product	ion Method		
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr.			vity	. i roduct	memou		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:0 Ratio		We	Il Status				

⁽See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #242165 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Sundi	ry Numb	er:	50015	API We	ell N	Jumber:	43047	5248	8000	00			
28b. Prod	duction - Inter	val C											
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		Gas Gravity				
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Sta	Status			
28c. Proc	duction - Inter	val D		1									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		Gas Gravity		Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Sta	ntus			
29. Dispo	osition of Gas(D	(Sold, used	d for fuel, ven	ted, etc.)	1	I	I		1				
30. Sumi	nary of Porou	s Zones (I	nclude Aquif	ers):						31. Fo	rmation (Log) Ma	rkers	
tests,	all important including dep ecoveries.	zones of joth interva	porosity and older tested, cushi	contents ther on used, tim	eof: Core e tool op	ed intervals an en, flowing an	d all drill-ster nd shut-in pres	n ssures					
	Formation		Тор	Bottom		Descript	ions, Contents	Contents, etc.			Name		Top Meas. Depth
32. Addi	tional remarks first 210 ft. of	s (include	plugging proc	redure):	12 2	in hit. The r	remainder of				REEN RIVER RD'S NEST AHOGANY ASATCH ESAVERDE		1285 1684 2156 4802 7459
surfa feet '	ice hole was ? 5023 feet. 9597 ft. Atta	drilled wi	ith an 11 in. g was run fro	bit. A DV to m surface t	ol was p o 5021 f	laced in the t.; LTC csg v	well from 50 vas run from)21					
33. Circle enclosed attachments: 1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 5. Sundry Notice for plugging and cement verification 6. Core Analysis									OST Re	eport	4. Directio	nal Survey	
34. I here	eby certify tha	t the foreg	Elect	ronic Subm	ission #2	omplete and complete A2165 Verific E OIL AND (ed by the BL	M Well I	nforma	tion Sy		ched instruction	ons):
Name	e(please print) <u>ILA BE</u>	ALE				Ti	tle STAF	F REG	ULAT	ORY SPECIALIS	ST	
Signa	ature	(Electro	onic Submiss	ion)			Da	Date 04/14/2014					
Title 18 V	U.S.C. Section nited States an	n 1001 and y false, fic	Title 43 U.S ctitious or frac	.C. Section 1 dulent statem	212, mal	xe it a crime for epresentations	or any person s as to any ma	knowingl tter within	y and w	illfully sdictio	y to make to any d n.	epartment or a	igency

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

						KIES R		
				Opera	ition s	umma	ary Report	
Well: NBU 922-3							Spud Date: 8/1	
Project: UTAH-U	INTAH		Site: NBI	J 922-31E	3 PAD			Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING	3		Start Dat	e: 8/1/201				End Date:
Active Datum: R Level)	KB @4,916.00	Ousft (above Me	an Sea	UWI: N\	W/NE/0/9)/S/22/E/3	1/0/0/26/PM/N/95	56/E/0/2220/0/0
Date	Time Start-E	nd (hr)	on Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/12/2013	7:00 - (9:00 2.00) MIRU	01	Α	Р	64	RIG DOWN AND MOVE OUT PRO PETRO RIG AND PIPE TRAILERS TO NBU 922-30P4BS / BEGIN TRANSFERING WATER TO NEW LOCATION & CLEAN MUD TANKS AND UPRIGHT STORAGE TANKS / WAIT ON DAYLIGHT TO MOVE BACK YARD AND HEAVY EQUIPMENT
	9:00 - 1	3:00 4.00) MIRU	01	Α	Р	64	PJSM WITH JD FIELD SERVICE & RIG CREW. MOVE 2 MILES TO NBU 922-3004BS / MOVE IN AND RIG UP CAMPS AND SET IN CLOSED LOOP SYSTEM / STALLION 2 SEMI-TRUCKS, 2 CREW TRUCKS / J.D FIELD SERVICE HAD 4 BEDTRUCKS, 2 HAUL TRUCKS, 1 PUSHER, 1 SAFETY MAN, 2 SWAMPERS, 1 FORKLIFT / PROPETRO 4 SEMI LOADS, 1 RIG, 1 CREW RIDE, 1 PUSHER
	13:00 - 1	7:00 4.00) MIRU	01	В	Р	64	RIG UP MUD TANKS AND PEAK CLOSE LOOP SYSTEM. RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
	17:00 - 1	7:30 0.50) DRLSUR	23		Р	64	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, PEAK CREW, AND SCIENTIFIC CREW. REVEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD
	17:30 - 2	0:30 3.00) MIRU	80	Α	Z	64	****FAILURE RIG EQUIPMENT (FORKLIFT BLEW A HYDROLIC HOSE) WAIT ON NEW HOSE
	20:30 - 2		DRLSUR	06	Α	Р	64	PICK UP 12 1/4" BIT 1.83 BEND MUD MOTOR.
	21:00 - 2			02	A	Р	64	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 110.6 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 800/600 TORQUE ON/OFF BOTTOM = 2,400/700 UP/DN/ROT = 22/20/20 PEAK ON LINE MUD WT = 8.4
	22:30 - 2			06	Α	P	230	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT
	23:00 - (0:00 1.00	DRLSUR	06	A	Р	230	PICK UP 11"BIT AND DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE

4/9/2014 11:16:32AM 1

Sundry	Number: 5	50015	APT We	<u>א ווי</u>	Iumbe	r: 4	30475248	380000		
US ROCKIES REGION										
				Opera	tion S	Summa	ary Report			
Well: NBU 922-3	004BS RED						Spud Date: 8/1	3/2013		
Project: UTAH-U	INTAH		Site: NBL	J 922-31B	PAD			Rig Name No: PROPETRO 12/12, SST 54/54		
Event: DRILLING	 }		Start Date	e: 8/1/201	3			End Date:		
Active Datum: RI	KB @4,916.00usft (ab	ove Mean S	iea	UWI: NV	N/NE/0/9	/S/22/E/3	1/0/0/26/PM/N/95	6/E/0/2220/0/0		
Level)										
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
8/13/2013	0:00 - 6:00	6.00	DRLSUR	02	В	P	230	DRILL 11". SURFACE HOLE, F/ 210' - T/ 770', 560' @ 93.3 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 925/660 TORQUE ON OFF = 3,000/900 UP/DOWN/ ROT 50/48/49 K. DRAG 1 K. PEAK ON LINE MUD WT 8.4 SLID 0' = 0% 0' ABOVE & 0' RIGHT OF THE LINE HOLE ISSUES= NONE		
	6:00 - 11:00	5.00	DRLSUR	02	В	P	790	DRILL 11". SURFACE HOLE, F/ 770' - T/1400', 630' @ 126 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 925/660 TORQUE ON OFF = 3,000/900 UP/DOWN/ ROT 50/48/49 K. DRAG 1 K. PEAK ON LINE MUD WT 8.4 SLID 132' = 25.88% 3' ABOVE & 0.26' RIGHT OF THE LINE HOLE ISSUES= NONE		
	11:00 - 13:00	2.00	DRLSUR	08	Α	Z	1420	*****FAILURE: RIG EQUIPMENT (CONTROLLER SWITCHS BURNT UP ON DRILLERS CONSOLE)		
	13:00 - 16:00	3.00	DRLSUR	21	D	S	1420	TWISTED OFF TOOL JOINT PIN 120' DOWN HOLE / LAY DOWN PIPE / WAIT ON TOOLS		
	16:00 - 17:30	1.50	DRLSUR	19	A	S	1420	PICK UP 11" OVERSHOT AND 4.5" GRAPPLE / TRIP IN 120' TO FISH / ATTATCH TO FISH AND WORK PIPE OUT HOLE SLOWLY / LAY DOWN FISHING EQUIPMENT AND FISH / TRIP IN 120'		
	17:30 - 0:00	6.50	DRLSUR	02	В	P	1420	DRILL 11". SURFACE HOLE, F/ 1400' - T/1910', 510' @ 78.5 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1195/950 TORQUE ON OFF = 3,100/1300 UP/DOWN/ ROT 75/50/60 K. DRAG 15 K. PEAK ON LINE MUD WT 8.4 SLID 65' = 16.67% 4.5' ABOVE & 1.66' LEFT OF THE LINE HOLE ISSUES= NONE		

4/9/2014 11:16:32AM 2

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 8/14/2013 0:00 - 6:00 6.00 DRLSUR 02 Ρ 1930 В DRILL 11". SURFACE HOLE, F/ 1,910' - T/ 2,340', 430' @ 71.7 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,300 / 1,070 TORQUE ON OFF = 3,100 / 1,400 UP/DOWN/ ROT 80/52/65 K. DRAG 15 K. PEAK ON LINE **MUD WT 8.4** SLID 40' = 8.89% 3.3' ABOVE & 1.86' LEFT OF THE LINE **HOLE ISSUES= NONE** 6:00 - 9:30 3.50 **DRLSUR** 02 2360 DRILL 11". SURFACE HOLE, F/ 2,340' - T/ 2,596', 256' @ 73.1 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,350 / 1,180 TORQUE ON OFF = 3,100 / 1,400 UP/DOWN/ ROT 80/52/65 K. DRAG 15 K. PEAK ON LINE MUD WT 8.4 SLID 35' = 13.26% 1.2' BELOW & 1.80' RIGHT OF THE LINE HOLE ISSUES= NONE 9:30 - 11:30 2.00 **DRLSUR** 2616 05 C CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS 3/4 FULL / 4 - 400 BBL UPRIGHT STORAGE TANKS FULL / 2- 400 BBI UPRIGHT STORAGE TANKS EMPTY 11:30 - 13:00 2616 1.50 DRI SUR D Р LAY DOWN DRILL PIPE TO 1,000' / WELL FLOWING 06 13:00 - 16:30 3.50 DRLSUR 06 Κ Χ *** WELL FLOWING / TRIP BACK IN HOLE TO 2,000' / CIRCULATE WAIT ON MUD / PUMP 130 BARRELS OF 12.2 # MUD / LAY DOWN DRILL PIPE TO 1,000' 16:30 - 19:30 3.00 DRLSUR D Ρ 2616 LAY DOWN DRILL PIPE AND BHA 06 19:30 - 20:00 0.50 **CSGSUR** 12 Ρ 2616 Α PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW . MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS. 20:00 - 23:00 3.00 **CSGSUR** 12 С 2616 RAN 58 JOINTS (2,566') OF 8-5/8", 28#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2,213'. LANDED SHOE @ 2,566' KB. BAFFLE PLATE @ 2,520' KB 23:00 - 0:00 1.00 **CSGSUR** 12 Ε 2616 PRE JOB SAFETY MEETING WITH PRO PETRO **CEMENTERS** RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING.

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PRESSURE TEST LINES TO 1000 PSI.

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> **US ROCKIES REGION Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea Date P/U Time Duration Phase Code MD From Operation Sub Start-End (hr) Code (usft) 8/15/2013 0:00 - 2:30 2.50 **CSGSUR** 12 Ρ 2616 Ε PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 1000 PSI. PUMP 140 BBLS OF WATER AHEAD CLEARING MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 280 SX OF PREMIUM LEAD CEMENT WITH 16% GEL, 10 LB/SX GILSONITE, 2 LB/SX GR-3, 3% SALT, & 0.25 LB/SX FLOCELE. 142.6 BBLS OF SLURRY MIXED @ 12.0 PPG WITH YIELD OF 2.86 CF/SX. MIX & PUMP 175 SX OF PREMIUM TAIL CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 DROP PLUG ON FLY. DISPLACE WITH 157.3 BBLS OF FRESH WATER. PARTIAL RETURNS THROUGH OUT JOB. FINAL LIFT OF 350 PSI AT 3.5 BBL/MINUTE. BUMPED PLUG @ 820 PSI. HELD @ 820 PSI FOR 5 MINS WITHOUT BLEED OFF. TESTED FLOAT AND FLOAT HELD. TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2 & .25 LB/SX FLOCELE. 30.7 BBLS OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE. RELEASE RIG @ 02:30, 8/15/2013 WAIT ON CEMENT 2.5 HOURS. TOP JOB # 2: CEMENT DOWN BACKSIDE WITH 125 SX PREMIUM CEMENT WITH 4% CACL2 & .25 LB/SX FLOCELE, 25.6 BBLS OF SLURRY MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. HOLE FILL BUT FELL BACK SLOWLY. RIG DOWN PRO PETRO CEMENTERS. CEMENT JOB FINISHED @ 08:00, 8/15/2013 12/8/2013 12:00 - 18:00 6.00 MIRU3 F 2616 TEAR DOWN & PREPARE FOR TRUCKS / MOVE HOUSING TO THE NBU 922-3004BS, WELL 1 OF 6/ JC CRANE ON LOCATION @ 12:00 AND RIGGED UP / JD FIELD SERVICES TRUCKS ON LOCATION @ 13:00 AND MOVED OUT FRONT YARD / MOUNTAIN WEST HAD 3 TRUCKS, 1 FLAG CAR, AND 1 SERVICE TRUCK. JD FIELD SERVICES HAD 5 HAUL TRUCKS, 1 POLE TRUCK, 1 BED TRUCK, 3 FLAG CARS, 1 FORKLIFT, 1 PUSHER, I SAFETYMAN, & 1 SWAMPER. RECIEVED HOUSING AND 5 LOADS OF RIG TO NEW LOCATION. STAGING RIG COMPONATES ON LOCATION AT BOTTOM OF HILL 18:00 - 0:00 6.00 MIRU3 Р 2616 SHUT DOWN FOR NIGHT 21 С 0:00 12/9/2013 - 6:00 6.00 MIRU3 21 С Р 2616 WAIT ON DAY LIGHT

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RECEIVED: Apr. 14, 2014

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 6:00 - 18:00 12.00 MIRU3 Ρ 2616 01 Α PREJOB SAFETY MEETING WITH JD TRUCKS / TEAR DOWN & MOVE RIG / DERRICK LAID DOWN @ 09:30, TAKE SUB APART / RECIEVED 14 LOADS TO STAGE AREA OF NEW LOCATION / LAID CONTAINMENT, SET MATTING BOARDS AND SKID RAILS ON NEW LOCATION / JD FIELD SERVICES HAD 5 BED TRUCKS, 2 POLE TRUCKS, 8 HAUL TRUCKS, 2 FORKLIFTS, 3 FLAG VEHICLES, 1 PUSHER, 1 SAFETYMAN, 1 CRANE WITH 4 OILERS, AND 5 SWAMPERS 18:00 - 0:00 6.00 MIRU3 21 С 2616 SHUT DOWN FOR NIGHT - 6:00 С 12/10/2013 0:00 6.00 MIRU3 21 2616 WAIT ON DAYLIGHT 6:00 - 18:00 12.00 MIRU3 01 В Р 2616 PREJOB SAFETY MEETING WITH JD TRUCKS / TEAR DOWN & RIG UP / SPLIT DERRICK & LOAD OUT ON LAST LOCATION -CRANE FROZE UP ON LAST LOCATION & COULD NOT MOVE / RIG UP - SET MUD TANKS, PUMPS, WATER TANK, SCR, GENERATORS, KOOMEY, PARTS HOUSE, & BOTTOM HALFS OF SUB - CHANGED BACKYARD SET-UP TO FIT SMALL LOCATION / JD FIELD SERVICES HAD 5 BED TRUCKS, 2 POLE TRUCKS, 8 HAUL TRUCKS, 2 FORKLIFTS, 3 FLAG VEHICLES, 2 PUSHER, 1 SAFETYMAN, 1 CRANE WITH 4 OILERS, AND 5 **SWAMPERS** 18:00 - 0:00 6.00 Р MIRU3 21 C 2616 SHUT DOWN FOR NIGHT 0:00 - 6:00 С 2616 12/11/2013 6.00 MIRU3 21 Р WAIT ON DAYLIGHT - 18:00 6:00 12.00 MIRU3 01 В Р 2616 PREJOB SAFETY MEETING WITH JD TRUCKS / RIG UP / RIG UP CRANE- STACK SUB HALVES- SET DRAW WORKS -PUT DERRICK TOGETHER & SET ON FLOOR / HOOK UP BACK YARD AND FIRE BOILER / SMALL LOCATION / JD FIELD SERVICES HAD 5 BED TRUCKS, 2 POLE TRUCKS, 8 HAUL TRUCKS, 2 FORKLIFTS, 2 FLAG VEHICLES, 2 PUSHER, 1 SAFETYMAN, 1 CRANE WITH 4 OILERS, AND 3 SWAMPERS. 18:00 - 0:00 6.00 MIRU3 С Р 2616 WAIT ON DAYLIGHT 0:00 12/12/2013 - 6:00 6.00 MIRU3 C Р 2616 WAIT ON DAYLIGHT 21 6:00 - 18:00 12.00 MIRU3 01 В Р 2616 PREJOB SAFETY MEETING WITH JD TRUCKS AND RIG CREWS / RIG UP / RAISE A-LEGS, RAISE DERRICK, PICK UP TOP DRIVE, INSTALL FLOW LINE, SET CAT WALK, BEAVER SLIDE, SET FRAC TANKS, & GET WATER CIRCULATING / SMALL LOCATION / JD FIELD SERVICES HAD 2 BED TRUCKS, 1 POLE TRUCKS, 8 HAUL TRUCKS, 2 FORKLIFTS, 2 PUSHER, 1 SAFETYMAN, 1 CRANE WITH 4 OILERS, AND 3 SWAMPERS - 0:00 18:00 6.00 MIRU3 01 В Р 2616 RIG UP FLOOR, PUT UP WINTER SHED / GET WATER CIRCULATING / FILL MUD TANKS & GET GUN LINE **CIRCULATING** 0:00 12/13/2013 - 6:00 6.00 MIRU3 01 В Ρ 2616 RIG UP FLOOR & PUT UP WINTERSHED 6:00 - 8:30 2.50 PRPSPD Ρ 2616 NIPPLE UP BOPE 14 Α

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				Opera	tion S	umma	ry Report	
Vell: NBU 922-3	30O4BS RED						Spud Date: 8/1	13/2013
roject: UTAH-L	JINTAH		Site: NBU	J 922-31E	PAD			Rig Name No: PROPETRO 12/12, SST 54/54
vent: DRILLIN	G		Start Date	e: 8/1/201	3			End Date:
ctive Datum: R	RKB @4,916.00usft (a	above Mean S	ea	UWI: N\	N/NE/0/9	/S/22/E/31	/0/0/26/PM/N/95	56/E/0/2220/0/0
evel)	-							
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:30 - 14:00	5.50	PRPSPD	15	A	Р	2616	PJSM WITH A-1 TESTERS & RIG CREW / ICH UP AND RUN TEST ASSY / TEST BOP WITH A-1 TESTERS - TEST ANNULAR TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN / PIPE & BLIND RAMS, FLOOR VALVES, IBOP, CHOKE LINE VALVES INCLUDING HCR VALVE, CHOKE LINE AND CHOKE MANIFOLD VALVES, KILL LINE VALVES, TEST BOP'S, CHOKE MANIFOLD TO 250 PSI LOW/ 5 MIN - 5000 PSI HIGH 10 MIN, HOLD ACCUMULATOR FUNCTION TEST, TEST CSG 1500 PSI - 30 MIN, RIG DOWN & LOAD OUT TEST ASSEMBLY
	14:00 - 16:30	2.50	PRPSPD	09	Α	Р	2616	CUT DRLG LINE / SET WEAR BUSHING
	16:30 - 17:30	1.00	PRPSPD	06	Α	Р	2616	PJSM, RIG UP FRANKS LAY DOWN MACHINE
	17:30 - 0:00	6.50	PRPSPD	06	Α	Р	2616	PICK UP BHA / SCRIBE MUD MOTOR, FUNCTION TEST MOTOR / TRIP IN HOLE PICKING UP DRILL PIP
12/14/2013	0:00 - 3:00	3.00	PRPSPD	06	Α	Р	2616	TRIP IN HOLE PICKING UP DRILL PIPE / TAG CEMEN @ 2,578'
	3:00 - 3:30	0.50	PRPSPD	06	Α	Р	2616	PJSM, RIG DOWN FRANKS LAY DOWN MACHINE
	3:30 - 6:30	3.00	PRPSPD	05	Α	Р	2616	CIRCULATE / HOOK UP FLARE LINES / COUNT PIPE
	6:30 - 9:30	3.00	PRPSPD	06	Α	Р	2616	TRIP TO CHECK PIPE COUNT
	9:30 - 10:00	0.50	PRPSPD	80	Α	Z	2616	*** FAILURE: TIGHTEN HAMMER LEAKING HAMMER UNION ON STAND PIPE
	10:00 - 12:00	2.00	DRLPRC	02	F	Р	2616	DRILL SHOE TRACK F/ 2,578' TO 2,586' / CLEAN OUT TO 2,616'
	12:00 - 18:00	6.00	DRLPRC	02	В	P	2616	DRILL / SLIDE/ SURVEY / F/ 2,616' TO 3,213' = 597' @ 99.5 FPH WOB 15,000 - 18,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 1,850 / 1,480 TORQUE ON/OFF BTM 8,930 / 4,200 PICK UP WT 86,000 SLACK OFF WT 80,000 ROT WT 84,000 SLIDE 103' = 19.81% 1.83' ABOVE & 3.22' RIGHT OF THE LINE MUD WT 8.8 VIS 34

NO HOLE ISSUES

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 18:00 - 21:00 3.00 DRLPRC 02 Ρ 3213 DRILL / SLIDE/ SURVEY / F/ 3,213' TO 3,513' = 300' В @ 100 FPH WOB 15,000 - 18,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,050 / 1,660 TORQUE ON/OFF BTM 10,530 / 6,200 PICK UP WT 92,000 SLACK OFF WT 82,000 **ROT WT 86,000** SLIDE 74" = 30.0% 11.5' ABOVE & 1.71' RIGHT OF THE LINE MUD WT 8.8 VIS 34 ZECO ON LINE RUNNING CONVENTIONAL NO HOLE ISSUES 21:00 - 22:00 1.00 **DRLPRC** 08 В Ζ 3513 *** FAILURE: REPLACE O-RING IN HAMMER UNION ON STAND PIPE 22:00 - 0:00 2.00 **DRLPRC** Р 3513 02 В DRILL / SLIDE/ SURVEY / F/ 3,513' TO 3,785' = 272' @ 136 FPH WOB 15,000 - 22,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,090 / 1,660 TORQUE ON/OFF BTM 10,850 / 7,200 **PICK UP WT 96.000** SLACK OFF WT 84,000 **ROT WT 86.000** SLIDE 50" = 42% 14' ABOVE & 0.14' RIGHT OF THE LINE MUD WT 8 8 VIS 34 ZECO ON LINE RUNNING CONVENTIONAL NO HOLE ISSUES 12/15/2013 0:00 - 7:00 7.00 DRLPRC 02 В 3785 DRILL / SLIDE/ SURVEY / F/ 3,785' TO 4,451' = 666' @ 95.1 FPH WOB 20,000 - 22,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,110 / 1,710 TORQUE ON/OFF BTM 10,850 / 7,200 PICK UP WT 125,000 SLACK OFF WT 105,000 **ROT WT 115,000** SLIDE 172" = 32.44% 11' BELOW & 0.13' LEFT OF THE LINE MUD WT 8 9 VIS 34 ZECO ON LINE RUNNING CONVENTIONAL NO HOLE ISSUES 7:00 - 7:30 0.50 DRLPRC Ρ 4451 RIG SERVICE 07 Α

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				Opera	tion S	umma	ry Report	
ell: NBU 922	-30O4BS RED						Spud Date: 8/	13/2013
oject: UTAH-	-UINTAH		Site: NBL	J 922-31B	PAD			Rig Name No: PROPETRO 12/12, SST 54/54
ent: DRILLIN	NG		Start Date	e: 8/1/201	3			End Date:
tive Datum: vel)	RKB @4,916.00usft (a	bove Mean S	ea	UWI: NV	N/NE/0/9/	/S/22/E/3 ⁻	1/0/0/26/PM/N/9	56/E/0/2220/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 12:00	4.50	DRLPRV	02	В	P	4451	DRILL / SLIDE/ SURVEY / F/ 4,451' TO 4,882' = 431' @ 95.7 FPH WOB 20,000 - 22,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,240 / 1,850 TORQUE ON/OFF BTM 10,850 / 7,200 PICK UP WT 145,000 SLACK OFF WT 105,000 ROT WT 125,000 SLIDE 72" = 16.22% 22.85' BELOW & 1.82' RIGHT OF THE LINE MUD WT 9.0 VIS 34 ZECO ON LINE RUNNING CONVENTIONAL NO HOLE ISSUES
	12:00 - 18:00	6.00	DRLPRV	02	В	P	4882	DRILL / SLIDE/ SURVEY / F/ 4,882' TO 5,403' = 520' @ 86.6 FPH WOB 20,000 - 22,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,250 / 1,860 TORQUE ON/OFF BTM 10,850 / 8,500 PICK UP WT 160,000 SLACK OFF WT 140,000 ROT WT 150,000 SLIDE 60" = 12.61% 3.62' BELOW & 2.84' RIGHT OF THE LINE MUD WT 9.1 VIS 34 ZECO ON LINE RUNNING CONVENTIONAL NO HOLE ISSUES
	18:00 - 0:00	6.00	DRLPRV	02	В	P	5403	DRILL / SLIDE/ SURVEY / F/ 5,403' TO 6,066' = 663' @ 110.5 FPH WOB 20,000 - 22,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,640 / 2,110 TORQUE ON/OFF BTM 13,600 / 8,500 PICK UP WT 160,000 SLACK OFF WT 125,000 ROT WT 145,000 SLIDE 56" = 18% 24' NORTH & 9.0' WEST OF THE LINE MUD WT 9.3 VIS 35 ZECO ON LINE RUNNING CONVENTIONAL

NO HOLE ISSUES

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				Opera	tion S	umma	ry Report	
Well: NBU 922-3	30O4BS RED						Spud Date: 8/1	3/2013
Project: UTAH-U	IINTAH		Site: NBL	J 922-31E	PAD			Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING	3		Start Date	e: 8/1/201	3			End Date:
Active Datum: R	KB @4,916.00usft (al	oove Mean S	ea	UWI: N\	N/NE/0/9	/S/22/E/3	1/0/0/26/PM/N/95	56/E/0/2220/0/0
Level)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/16/2013	0:00 - 6:00	6.00	DRLPRV	02	В	P	6066	DRILL / SLIDE/ SURVEY / F/ 6,066' TO 6,667' = 601' @ 100.1 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 60 - 70 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,710 / 2,275 TORQUE ON/OFF BTM 13,600 / 9,700 PICK UP WT 170,000 SLACK OFF WT 130,000 ROT WT 150,000 SLIDE 0' = 0% 15' NORTH & 7.5' WEST OF THE LINE MUD WT 9.3 VIS 35 ZECO ON LINE RUNNING 1 CENTRIFUGE CONVENTIONAL, ONE CENTRIFUGE ON DEWATER
	6:00 - 13:30 13:30 - 14:00	7.50	DRLPRV	02	В	P	7017	NO HOLE ISSUES DRILL / SLIDE/ SURVEY / F/ 6,667' TO 7,017' = 350' @ 46.6 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 129 PUMPS 160 SPM= 563 GPM PUMP PRESSURE ON/OFF BTM 2,430 / 2,205 TORQUE ON/OFF BTM 12,800 / 9,200 PICK UP WT 190,000 SLACK OFF WT 140,000 ROT WT 168,000 SLIDE 27' = 10.24% 3.58' NORTH & 3.79' WEST OF THE LINE MUD WT 9.3 VIS 40 ZECO ON LINE RUNNING 1 CENTRIFUGE CONVENTIONAL, 1 CENTRIFUGE ON DEWATER NO HOLE ISSUES RIG SERVICE
	14:00 - 18:00	4.00	DRLPRV	02	В	P	7017	DRILL / SLIDE/ SURVEY / F/ 7,017' TO 7,207' = 190'
	10.00	7.00	DICTIV	52			7017	@ 47.5 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 129 PUMPS 150 SPM= 527 GPM PUMP PRESSURE ON/OFF BTM 2,430 / 2,205 TORQUE ON/OFF BTM 12,600 / 9,200 PICK UP WT 190,000 SLACK OFF WT 140,000 ROT WT 168,000 SLIDE 13' = 27% 6.0' NORTH & 4.0' WEST OF THE LINE MUD WT 9.3 VIS 40 ZECO ON LINE RUNNING 1 CENTRIFUGE CONVENTIONAL, 1 CENTRIFUGE ON DEWATER NO HOLE ISSUES

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> **US ROCKIES REGION Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 18:00 - 0:00 6.00 **DRLPRV** 02 Ρ 7207 В DRILL / SLIDE/ SURVEY / F/ 7,017' TO 7,503' = 486' @ 81 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 137 PUMPS 170 SPM= 597 GPM PUMP PRESSURE ON/OFF BTM 2,600 / 2,330 TORQUE ON/OFF BTM 16,600 / 10,300 PICK UP WT 215,000 SLACK OFF WT 145,000 **ROT WT 183,000** SLIDE 11' = 14% 3.58' NORTH & 3.79' WEST OF THE LINE MUD WT 9.3 VIS 39 ZECO ON LINE RUNNING 2 CENTRIFUGE ON **DEWATER** NO HOLE ISSUES 12/17/2013 0:00 - 6:00 6.00 **DRLPRV** 02 7503 DRILL / SLIDE/ SURVEY / F/ 7,503' TO 7,841' = 338' @ 56.3 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 137 PUMPS 170 SPM= 597 GPM PUMP PRESSURE ON/OFF BTM 2,640 / 2,400 TORQUE ON/OFF BTM 14,500 / 9,300 PICK UP WT 220,000 SLACK OFF WT 140,000 ROT WT 175,000 SLIDE 17' = 16% 13' NORTH & 3.3' WEST OF THE LINE MUD WT 9.1 VIS 38 ZECO ON LINE RUNNING 2 CENTRIFUGE ON **DEWATER** NO HOLE ISSUES 6:00 - 14:00 8.00 **DRLPRV** 02 В 7841 DRILL / SLIDE/ SURVEY / F/ 7,841' TO 8,349' = 508' @ 63.5 FPH WOB 20.000 - 24.000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 137 PUMPS 170 SPM= 597 GPM PUMP PRESSURE ON/OFF BTM 2,680 / 2,500 TORQUE ON/OFF BTM 16,010 / 11,300 PICK UP WT 240,000 SLACK OFF WT 145,000 **ROT WT 181,000** SLIDE 0' = 0% 16.42' NORTH & 8.10' WEST OF THE LINE MUD WT 9.0 VIS 36 ZECO ON LINE RUNNING 2 CENTRIFUGE CONVENTIONAL NO HOLE ISSUES 14:00 - 14:30 0.50 **DRLPRV** 8349 **RIG SERVICE**

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				Opera	tion S	umma	ry Report	
Nell: NBU 922-	-30O4BS RED						Spud Date: 8/1	13/2013
Project: UTAH-l	UINTAH		Site: NBL	J 922-31B	PAD			Rig Name No: PROPETRO 12/12, SST 54/54
vent: DRILLIN	IG		Start Date	e: 8/1/201	3			End Date:
ctive Datum: F	RKB @4,916.00usft (a	bove Mean S	ea	UWI: NV	V/NE/0/9	/S/22/E/31	/0/0/26/PM/N/95	56/E/0/2220/0/0
evel)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 18:00	3.50	DRLPRV	02	В	P	8349	DRILL / SLIDE/ SURVEY / F/ 8,349' TO 8,508' = 159' @ 45.4 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 129 PUMPS 160 SPM= 562 GPM PUMP PRESSURE ON/OFF BTM 2,695 / 2,150 TORQUE ON/OFF BTM 15,550 / 14,300 PICK UP WT 232,000 SLACK OFF WT 155,000 ROT WT 180,000 SLIDE 6' = 4.44% 15.03' NORTH & 10.54' WEST OF THE LINE MUD WT 9.2 VIS 36 ZECO ON LINE RUNNING 2 CENTRIFUGE CONVENTIONAL NO HOLE ISSUES
	18:00 - 0:00	6.00	DRLPRV	02	В	Р	8508	DRILL / SLIDE/ SURVEY / F/ 8,508' TO 8,660' = 152' @ 25.3 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 129 PUMPS 160 SPM= 562 GPM PUMP PRESSURE ON/OFF BTM 2,760 / 2,579 TORQUE ON/OFF BTM 16,180 / 14,900 PICK UP WT 232,000 SLACK OFF WT 155,000 ROT WT 182,000 SLIDE 8' = 4.28% 14.44' NORTH & 11.44' WEST OF THE LINE MUD WT 9.3 VIS 38 ZECO ON LINE RUNNING 1 CENTRIFUGE CONVENTIONAL HOLE ISSUES: OCCASIONAL 2' FLARE
12/18/2013	0:00 - 6:00	6.00	DRLPRV	02	В	P	8660	DRILL / SLIDE/ SURVEY / F/ 8,660' TO 8,890' = 152' @ 25.3 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 121 PUMPS 150 SPM= 527 GPM PUMP PRESSURE ON/OFF BTM 2,555 / 2,450 TORQUE ON/OFF BTM 16,900 / 15,550 PICK UP WT 235,000 SLACK OFF WT 155,000 ROT WT 190,000 SLIDE 0' = 0% 14.53' NORTH & 12.06' WEST OF THE LINE MUD WT 9.5 VIS 37 ZECO OFF LINE RUNNING HOLE ISSUES: OCCASIONAL 2' FLARE

				U	S ROC	KIES RE	GION	
				Opera	tion S	umma	ry Report	
/ell: NBU 922-	-30O4BS RED						Spud Date: 8/1	13/2013
roject: UTAH-	UINTAH		Site: NBL	J 922-31E	PAD			Rig Name No: PROPETRO 12/12, SST 54/54
vent: DRILLIN	IG		Start Date	e· 8/1/201	3			End Date:
ctive Datum: I	RKB @4,916.00usft (a	bove Mean S		1		/S/22/E/31	/0/0/26/PM/N/95	56/E/0/2220/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:00	6.00	DRLPRV	02	В	Р	8890	DRILL / SLIDE/ SURVEY / F/ 8,890' TO 9,038' = 148' @ 24.6 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 121 PUMPS 150 SPM= 527 GPM PUMP PRESSURE ON/OFF BTM 2,755 / 2,550 TORQUE ON/OFF BTM 16,900 / 15,550 PICK UP WT 235,000 SLACK OFF WT 155,000 ROT WT 190,000 SLIDE 0' = 0% 8.83' NORTH / 11.64' WEST OF THE LINE MUD WT 11.0 VIS 37 ZECO OFF LINE RUNNING HOLE ISSUES: OCCASIONAL 5' FLARE
	12:00 - 16:30	4.50	DRLPRV	02	В	Р	9038	DRILL / SLIDE/ SURVEY / F/ 9,038' TO 9,205' = 167' @ 24.6 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 121 PUMPS 150 SPM= 527 GPM PUMP PRESSURE ON/OFF BTM 2,755 / 2,550 TORQUE ON/OFF BTM 16,900 / 15,550 PICK UP WT 235,000 SLACK OFF WT 155,000 ROT WT 190,000 SLIDE 0' = 0% 4.52' NORTH / 10.58' WEST OF THE LINE MUD WT 11.3 VIS 37 ZECO OFF LINE RUNNING HOLE ISSUES: OCCASIONAL 5' FLARE
	16:30 - 17:00	0.50	DRLPRV	07	Α	Р	9205	RIG SERVICE
	17:00 - 0:00	7.00	DRLPRV	02	В	P	9205	DRILL / SLIDE / SURVEY / F / 9,205' TO 9,441' = 236' @ 33.7 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 121 PUMPS 100 SPM= 351 GPM PUMP PRESSURE ON/OFF BTM 1,800 / 1,500 TORQUE ON/OFF BTM 16,900 / 15,550 PICK UP WT 248,000 SLACK OFF WT 175,000 ROT WT 200,000 SLIDE 0' = 0% 1.54' SOUTH / 10.24' WEST OF THE LINE MUD WT 11.2 VIS 38 ZECO OFF LINE RUNNING

HOLE ISSUES: SOME LOSSES

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> US ROCKIES REGION **Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea P/U Date Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 12/19/2013 0:00 - 7:00 7.00 **DRLPRV** 02 Ρ 9441 В DRILL / SLIDE/ SURVEY / F/ 9,441' TO 9,615' TD = 154' @ 25 FPH WOB 20,000 - 24,000 TOP DRIVE RPM 50 - 60 MUD MOTOR RPM 121 PUMPS 100 SPM= 351 GPM PUMP PRESSURE ON/OFF BTM 1,800 / 1,500 TORQUE ON/OFF BTM 16,900 / 15,550 PICK UP WT 248,000 SLACK OFF WT 175,000 **ROT WT 200,000** SLIDE 0' = 0% 11.27' SOUTH / 10.46' WEST OF THE LINE MUD WT 11.2 VIS 38 ZECO OFF LINE RUNNING HOLE ISSUES: SOME LOSSES 7.00 - 9:00 2.00 **DRLPRV** 05 С 9615 CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=36, MUD OUT 11.5 PPG VISCOSITY=36, MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS 9:00 - 11:30 2.50 DRLPRV 9615 06 10 STAND WIPER TRIP WITH NO HOLE PROBLEMS 11:30 - 13:30 2.00 **DRLPRV** 05 С Р 9615 CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=36, MUD OUT 11.5 PPG VISCOSITY=36, MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS 13:30 - 20:00 6.50 **DRLPRV** 06 D 9615 PUMP 40 BBL DRY JOB, BLOW DOWN TOP DRIVE, TRIP OUT OF HOLE FOR CASING RUN, ONE TIGHT **SPOT AT 4.700** HOLE TOOK PROPER FILL WITH NO GAINS NO LOSSES NO FLOW ON FLOW CHECKS 20:00 - 21:00 1.00 DRLPRV D Ρ 9615 LAY DOWN DIRECTIONAL TOOLS 06 21:00 - 23:00 2.00 **CSGPRO** 12 Α Ρ 9615 HOLD SAFETY MEETING / RIG UP KIMZEY CASING

4/9/2014 11:16:32AM 13

SERVICE CASING EQUIPMENT

<u> Sundry Number: 50015 API Well Number: 43047524880000</u> **US ROCKIES REGION Operation Summary Report** Well: NBU 922-30O4BS RED Spud Date: 8/13/2013 Project: UTAH-UINTAH Site: NBU 922-31B PAD Rig Name No: PROPETRO 12/12, SST 54/54 **Event: DRILLING** End Date: Start Date: 8/1/2013 UWI: NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0 Active Datum: RKB @4,916.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 23:00 - 0:00 1.00 **CSGPRO** 12 Ρ 9615 С KIMZEY'S CASING SERVICE, (INSPECT FLOAT EQUIPMENT) RIG UP TORQUE TURN, PERFORM DUMP TEST. MAKE UP 4.5" K-55 LTC DRILLING & COMPLETION TECH. FLOAT SHOE ON SHOE JOINT WITH THREAD MAKE UP 4.5" K-55 FLOAT COLLAR WITH THREAD LOCK ON TOP OF SHOE JOINT. RUN CENTRALIZERS ON FIRST 3 JOINTS AND **EVERY THIRD JOINT FOR TOTAL OF 15** CENTRALIZERS BREAK CIRCULATION @ 50', 968', 5000'. NO PROBLEMS WITH FLOAT SHOE OR COLLAR. RUN A TOTAL OF 103 JOINTS OF 4 1/2", 11.6#. I-80, LT&C CASING + 1 MARKER JOINT MAKE UP DQX CROSS OVER JOINT AND RUN A TOTAL OF 113 JOINTS OF 4 1/2", 11.6#, I-80/ DQX, CASING, +1 CROSSOVER, DV TOOL + 1 PUP RUN A TOTAL OF 216 JOINTS. SET FLOAT SHOE @ 9,595.54', SET TOP FLOAT COLLAR @ 9,550.04', SET TOP OF MESAVERDE MARKER JOINT @ 0.00 12/20/2013 - 8:00 8.00 **CSGPRO** 12 С Р 9615 KIMZEY'S CASING SERVICE, (INSPECT FLOAT EQUIPMENT) RIG UP TORQUE TURN, PERFORM DUMP TEST. MAKE UP 4.5" K-55 LTC DRILLING & COMPLETION TECH. FLOAT SHOE ON SHOE JOINT WITH THREAD MAKE UP 4.5" K-55 FLOAT COLLAR WITH THREAD LOCK ON TOP OF SHOE JOINT. RUN CENTRALIZERS ON FIRST 3 JOINTS AND **EVERY THIRD JOINT FOR TOTAL OF 15** CENTRALIZERS. BREAK CIRCULATION @ 50', 968', 5000'. NO PROBLEMS WITH FLOAT SHOE OR COLLAR. RUN A TOTAL OF 103 JOINTS OF 4 1/2", 11.6#. I-80, LT&C CASING + 1 MARKER JOINT MAKE UP DQX CROSS OVER JOINT AND DV TOOL, RUN A TOTAL OF 113 JOINTS OF 4 1/2", 11.6#, I-80/ DQX, CASING, +1 CROSSOVER, DV TOOL + 1 PUP **JOINT** RUN A TOTAL OF 216 JOINTS OF CASING TO **BOTTOM WITH NO PROBLEMS** SET FLOAT SHOE @ 9,595.54', SET TOP FLOAT COLLAR @ 9,550.04', SET TOP OF MESAVERDE MARKER JOINT @ 7,319.89 8:00 - 8:30 0.50 **CSGPRO** С Р 9615 LAND CASING WITH CAMERON 12 8:30 - 9:00 0.50 Р 9615 RIG DOWN KIMZEY CASING EQUIPMENT. **CSGPRO** 12 Α 9:00 - 11:00 2.00 **CSGPRO** 05 D Ρ 9615 CIRCULATE TWO BOTTOMS UP CIRCULATE OUT ALL THE GAS. **CSGPRO** 11:00 - 11:30 0.50 12 В Ρ 9615 RIG UP BAKER HUGHES CEMENT EQUIPMENT.

						KIES RI Summa	EGION ary Report	
Nell: NBU 922-	3004BS RED						Spud Date: 8/1	13/2013
Project: UTAH-L	JINTAH		Site: NBL	J 922-31E	B PAD		·	Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLIN	 G		Start Date	e: 8/1/201	13			End Date:
Active Datum: R Level)	KB @4,916.00usft (al	bove Mean S				/S/22/E/3	1/0/0/26/PM/N/95	56/E/0/2220/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:30 - 14:00	2.50	CSGPRO	12	E	P	9615	HOLD SAFETY MEETING WITH BAKER HUGHES TWO STAGE PRIMARY CEMENT JOB FIRST STAGE TEST LINES TO 6,850 PSI, PUMP 25 BBLS H2O 8.3 PPG SPACER, MIX & PUMP 930 sacks (50:50) Poz (Fly Ash):Class G Cement + 0.05% bwoc Static Free + 10% bwow Sodium Chloride + 0.55% bwoc R-3 + 0.5% bwoc EC-1 + 0.25 lbs/sack Cello Flake + 0.002 gps FP-6L + 0.7% bwoc Sodium Metasilicate + 2% bwoc Bentonite II + 5 lbs/sack Kol-Seal, 50 lb bag + 55.9% Fresh Water Slurry Weight (ppg) 14.30PPG Slurry Yield (cf/sack) 1.35 DROP PLUG DISPLACEMENT 80 bbls FRESH WATER @ 8.34 ppg CONTINUE TO DISPLACE WITH 58.5 BBLS OF 11.5 PPG MUD SLOW RATE TO BUMP PLUG 10BBLS 1,465 FINAL LIFT PRESSURE BUMP PLUG 500 OVER AND TEST FLOAT COLLER FLOAT HELD (2 BBLS BLED BACK) PRESSURE UP TO 3480 TO OPEN DV TOOL TO CIRCULATE 25 BBLS OF SPACER WATER BACK TO SERFACE NO CEMENT
	14:00 - 18:30	4.50	CSGPRO	13	A	Р	9615	25 BBLS OF SPACER WATER BACK TO SERFACE NO CEMENT CIRCULATE THROUGH DV TOOL 4.5 HRS FOR FIRST

STAGE CEMENT JOB TO SET UP

				U	S ROC	KIES R	EGION	
				Opera	tion S	Summa	ary Report	
Well: NBU 922-30O4B	S RED						Spud Date: 8/1	3/2013
Project: UTAH-UINTAH	l		Site: NBU	922-31E	3 PAD			Rig Name No: PROPETRO 12/12, SST 54/54
Event: DRILLING			Start Date	e: 8/1/201	13			End Date:
Active Datum: RKB @4 ∟evel)	1,916.00usft (ab	oove Mean Se	ea	UWI: N\	W/NE/0/9	/S/22/E/3	1/0/0/26/PM/N/95	66/E/0/2220/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
18:31	0 - 20:30	2.00	CSGPRO	12	E	P	9615	HOLD SAFETY MEETING WITH BAKER HUGHES TWO STAGE PRIMARY CEMENT JOB SECOND STAGE PUMP 25 BBLS H2O 8.3 PPG SPACER, 2ND LEAD SLURRY MIX & PUMP 560 sacks Premium Lite II Cement + 0.05% bwoc Static Free + 3% bwoc Calcium Chloride + 0.25 Ibs/sack Cello Flake + 5 lbs/sack Kol-Seal, 50 lb bag + 0.4% bwoc FL-52 + 0.4% bwoc Sodium Metasilicate + 6% bwoc Bentonite II + 121.5% Fresh Water 2ND TAIL MIX & PUMP 60 sacks Class G Cement + 1% bwoc Calcium Chloride + 0.4% bwoc Sodium Metasilicate + 44.4% Fresh Water Slurry Weight (ppg) SLURRY 1 12.0 SLURRY 2 15.8 Slurry Yield (cf/sack) SLURRY 1 1.35 SLURRY 2 1.16 DROP PLUG DISPLACEMENT 65 bbls FRESH WATER @ 8.34 ppg SLOW RATE TO BUMP PLUG 78BBLS 790 FINAL LIFT PRESSURE BUMP PLUG 1500 OVER TEST DV TOOL TOOL HELD 200 PSI BELOW CALCULATED PRESSURE NO CEMENT BACK TO SERFACE.
20:3	0 - 22:00	1.50	CSGPRO	12	В	Р	9615	RIG DOWN CEMENTERS
	0 - 0:00	2.00	RDMO	14	Α	Р	9615	NIPPLE DOWN BOPE AND SKID RIG,

RECEIVED: Apr. 14, 2014

RELEASE RIG @ 2400HRS

US ROCKIES REGION

General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-3004BS RED	Wellbore No.	НО
Well Name	NBU 922-3004BS	Wellbore Name	NBU 922-3004BS
Report No.	1	Report Date	3/17/2014
Project	UTAH-UINTAH	Site	NBU 922-31B PAD
Rig Name/No.		Event	COMPLETION
Start Date	2/14/2014	End Date	3/25/2014
Spud Date	8/13/2013	Active Datum	RKB @4,916.00usft (above Mean Sea Level)
IWI	NW/NE/0/9/S/22/E/31/0/0/26/PM/N/956/E/0/2220/0/0		

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

Summary

1.5

1.4 Initial Conditions

Fluid Type		Fluid Density	Gross Interval	7,465.0 (usft)-9,365.0 (usft Start Date/Time	Start Date/Time	3/17/2014 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	58	58 End Date/Time	3/17/2014 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	207	207 Net Perforation Interval	69.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.00 (shot/ft)	3.00 (shot/ft) Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

RECEIVED: Apr.

2.1 Perforated Interval

14,

2014

April 09, 2014 at 11:18 am

Misrun	
Reason	19.00 PRODUCTIO
Charge Weight (gram)	19.00
Charge Desc /Charge Manufacturer	
Phasing (°)	120.00
Carr Size (in)	3.125
Carr Type /Stage No	0.410 EXP/
Diamete r (in)	0.410
Misfires/ Add. Shot	
Shot Density (shot/ft)	3.00
CCL-T MD Top MD Base S (usft) (usft)	7,466.0
MD Top (usft)	7,465.0
CCL-T S (usft)	
(nstt)	
Formation/ Reservoir	3/17/2014 MESAVERDE/ 12:00AM
Date	3/17/2014 12:00AM

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2.1 Perforated Interval (Continued)

Misrun																					
Reason	19.00 PRODUCTIO N																				
Charge Weight (gram)	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
Charge Desc /Charge Manufacturer																					
Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Carr Size (in)	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
e Carr Type /Stage No	0.410 EXP/																				
/ Diamete rot (in)	.4.0	7.0	7.0	7.0	7.0	7.0	.4.0	0.4	7.4.0	7.0	7.0	0.4	7.0	7.4.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Misfires/ Add. Shot																					
Shot Density (shot/ft)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
MD Base (usft)	7,501.0	7,538.0	7,557.0	7,625.0	7,647.0	7,655.0	7,724.0	7,734.0	7,745.0	7,770.0	7,790.0	7,835.0	7,860.0	7,941.0	8,021.0	8,028.0	8,096.0	8,103.0	8,190.0	8,230.0	8,318.0
MD Top (usft)	7,500.0	7,537.0	7,556.0	7,624.0	7,646.0	7,653.0	7,723.0	7,733.0	7,744.0	7,769.0	7,789.0	7,834.0	7,858.0	7,940.0	8,020.0	8,026.0	8,095.0	8,101.0	8,189.0	8,229.0	8,317.0
CCL-T S (usft)																					
(nsft)																					
Formation/ Reservoir	MESAVERDE/																				
Date	3/17/2014 12:00AM	-+																			

US ROCKIES REGION

2.1 Perforated Interval (Continued)

Misrun																					
Reason	19.00 PRODUCTIO N																				
Charge Weight (gram)	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
Charge Desc /Charge Manufacturer																					
Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Carr Size (in)	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
Carr Type /Stage No	EXP/																				
Diamete r (in)	0.410 EXP/	0.410 EXP/	0.410 EXP	0.410 EXP/																	
Misfires/ Add. Shot																					
Shot Density (shot/ft)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
MD Base (usft)	8,350.0	8,362.0	8,381.0	8,435.0	8,462.0	8,498.0	8,528.0	8,546.0	8,562.0	8,578.0	8,588.0	8,644.0	8,654.0	8,685.0	8,704.0	8,732.0	8,781.0	8,795.0	8,807.0	8,841.0	8,874.0
MD Top (usft)	8,349.0	8,361.0	8,379.0	8,434.0	8,461.0	8,497.0	8,527.0	8,545.0	8,561.0	8,577.0	8,587.0	8,643.0	8,653.0	8,684.0	8,703.0	8,731.0	8,780.0	8,794.0	8,806.0	8,840.0	8,873.0
CCL-T S (usft)																					
(nsft)																					
Formation/ Reservoir	MESAVERDE/																				
Date	3/17/2014 12:00AM																				

OpenWells

2.1 Perforated Interval (Continued)

Misrun															
Reason	19.00 PRODUCTIO N														
Charge Weight (gram)	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
Charge Desc /Charge Manufacturer															
Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Carr Size (in)	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
Carr Type /Stage No	0.410 EXP/														
Diamete r (in)	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410	0.410
Misfires/ Add. Shot															
Shot Density (shot/ft)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
MD Base (usft)	8,887.0	8,905.0	8,932.0	8,951.0	8,980.0	9,020.0	9,031.0	9,091.0	9,104.0	9,121.0	9,132.0	9,212.0	9,292.0	9,346.0	9,365.0
MD Top (usft)	8,886.0	8,904.0	8,931.0	8,949.0	8,979.0	9,019.0	9,030.0	9,090.0	9,103.0	9,120.0	9,130.0	9,211.0	9,290.0	9,344.0	9,362.0
CCL-T S (usft)															
(nsft)															
Formation/ Reservoir	MESAVERDE/														
Date	3/17/2014 12:00AM														

Plots

April 09, 2014 at 11:18 am

OpenWells

				U	S ROC	KIES RE	EGION	
				Opera	tion S	Summa	ry Report	
	INTAH	bove Mean S	Site: NBU Start Date	e: 2/14/20	14	//S/22/E/3 ²	Spud Date: 8/1	Rig Name No: SWABBCO 6/6 End Date: 3/25/2014
Level) Date	Time Start-End	Duration	Phase	Code	Sub	P/U	MD From	Operation
2/14/2014	11:00 - 16:00	(hr) 5.00	SUBSPR	32	F F	P	(usft)	RU IPS RIH WITH 3 7/8" MILL TAGGED CEMENT AT 4880' DRILLED OUT CEMENT FROM 4,880 TO DV TOOL,@ 5021, DRILLED OUT DV TOOL 13 MIN, RIH TAGGED @ 9,532 CLEANED OUT TO FC @ 9,550 CIRCULATE CLEAN, WITH TMAC, POOH, RU INSTALLED TREE MOVED OVER TO GREEN WELL
2/18/2014	-							
3/5/2014	7:00 - 8:00	1.00	SUBSPR	52	В	Р		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST -60 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 519 PSI HELD FOR 5 MIN LOST -82 PSI, BLED PSI OFF, REINSTALLED POP
3/17/2014	7:00 - 7:15	0.25	FRAC	48		Р		OFF SWIFN NO PRESSURE ON SURFACE CASING NO PSI ON SURFACE CSG HSM-JSA
3/1//2014	7:15 - 11:00	3.75	FRAC	37	E	P		MIRU CASED HOLE SOLUTIONS, RIH PERF STG #1 AS DESIGNED, SWIFN
3/18/2014	6:15 - 6:30	0.25	FRAC	48		Р		HSM-JSA
	6:30 - 15:30	9.00	FRAC	36	Н	Р		FRAC STG #1) WHP 1280 PSI, BRK 3976 PSI @ 4.1 BPM. ISIP 2908 PSI, FG. 0.75 ISIP 2840 PSI, FG. 0.74, NPI -68 PSI, X/O TO WL. SET CBP & PERF STG #2 AS DESIGNED, X/O TO FRAC. FRAC STG #2) WHP 1575 PSI, BRK 3712 PSI @ 4.8 BPM. ISIP 2644 PSI, FG. 0.73 ISIP 2783 PSI, FG. 0.75, NPI 139 PSI, X/O TO WL. SET CBP & PERF STG #3 AS DESIGNED, SWI, SDFN.
3/19/2014	6:00 - 6:15	0.25	FRAC	48		Р		HSM-JSA
	6:15 - 18:00	11.75	FRAC	36	Н	Р		FRAC STG #3) WHP 1862 PSI, BRK 3948 PSI @ 4.3 BPM. ISIP 2452 PSI, FG. 0.71 ISIP 2626 PSI, FG. 0.73, NPI 174 PSI, X/O TO WL. SET CBP & PERF STG #4 AS DESIGNED, X/O TO FRAC. FRAC STG #4) WHP 1963 PSI, BRK 2780 PSI @ 3.7 BPM. ISIP 2196 PSI, FG. 0.69 ISIP 2470 PSI, FG. 0.72, NPI 274 PSI, X/O TO WL. SET CBP & PERF STG #5 AS DESIGNED, SWI, SDFN.

4/9/2014 11:19:43AM 1

					U	S ROC	KIES RE	GION	
								ry Report	
Well: NBU 922-3	NO4BS RE	=D			•			Spud Date: 8/	13/2013
Project: UTAH-U				Site: NBL	J 922-31E	PAD			Rig Name No: SWABBCO 6/6
vent: COMPLE	TION			Start Date	· 2/14/20	114			End Date: 3/25/2014
Active Datum: R		6 00usft (ab	ove Mean S				L //S/22/E/31	/0/0/26/PM/N/9	56/E/0/2220/0/0
.evel)									
Date		ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/20/2014	6:00	- 6:15	0.25	FRAC	48		Р		HSM-JSA
	6:15	- 17:00	10.75	FRAC	36	Н	Р		FRAC STG #5) WHP 1745 PSI, BRK 3195 PSI @ 4.2 BPM. ISIP 2140 PSI, FG. 0.69 ISIP 2516 PSI, FG. 0.73, NPI 376 PSI, X/O TO WL. SET CBP & PERF STG #6 AS DESIGNED, X/O TO
									FRAC. FRAC STG #6) WHP 1273 PSI, BRK 3136 PSI @ 4.9 BPM. ISIP 2539 PSI, FG. 0.75 ISIP 2620 PSI, FG. 0.75, NPI 81 PSI, X/O TO WL.
	0.00						_		SET CBP & PERF STG #7 AS DESIGNED, SWI, SDFN.
3/22/2014		- 6:15	0.25	FRAC	48		Р		HSM-JSA
	0.10	- 18:30	12.25	FRAC	36	Н	Р		FRAC STG #7) WHP 1530 PSI, BRK 2585 PSI @ 4.2 BPM. ISIP 2133 PSI, FG. 0.7 ISIP 2730 PSI, FG. 0.78, NPI 597 PSI, X/O TO WL. SET CBP & PERF STG #8 AS DESIGNED, X/O TO FRAC.
									FRAC STG #8) WHP 1612 PSI, BRK 2594 PSI @ 4.7 BPM. ISIP 1527 PSI, FG. 0.63 ISIP 2186 PSI, FG. 0.72, NPI 659 PSI, X/O TO WL.
									SET CBP & PERF STG #9 AS DESIGNED, SWI, SDFN.
3/23/2014		- 7:15	0.25	FRAC	48		Р		HSM-JSA
	7:15	- 8:05	0.83	FRAC	36	Н	Р		FRAC STG #9) WHP 346 PSI, BRK 2615 PSI @ 4.7 BPM. ISIP 1258 PSI, FG. 0.61 ISIP 2123 PSI, FG. 0.72, NPI 865 PSI, X/O TO WL.
	8:05	- 8:45	0.67	FRAC	46	Е	Z		PUMP REPAIRS
	8:45	- 14:00	5.25	FRAC	36	Н	Р		SET KILL PLUG, RDMO WL & FRAC EQUIP.
									TOTAL CLEAN FLUID- 9889 BBLS TOTAL SAND- 195695 LBS
3/24/2014	7:00	- 7:30	0.50	DRLOUT	48		Р		MIRU
		- 16:30	9.00	DRLOUT	31	I	P		RDMO FROM NBU 1022-33P, ROAD RIG TO NBU 922-31B PAD, MIRU RED WELL, NBU 922-31004BS, , SPOT EQUIP, SET CEMENT ANCHORS, BLUE MT RU BJD,HAL 9000, TIH WITH 234 JTS TBG TAG KILL
3/25/2014	7:00	7.00	0.50	DRI OLIT	48		D		PLUG, PU PWR SWIVEL. SWIFN
									NATE OF THE PROPERTY OF THE PR

4/9/2014 11:19:43AM 2

Р

MILLING CBP'S

3/25/2014

7:00 - 7:30

0.50

DRLOUT

48

				U	S ROC	KIES RI	EGION					
				Opera	tion S	umma	ry Report					
Vell: NBU 922-	30O4BS RED						Spud Date: 8/	3/2013				
roject: UTAH-L	JINTAH		Site: NBL	J 922-31E	3 PAD			Rig Name No: SWABBCO 6/6				
vent: COMPLE	ETION		Start Date	e: 2/14/20)14			End Date: 3/25/2014				
ctive Datum: Fevel)	RKB @4,916.00usft (al	bove Mean S	ea	UWI: N	W/NE/0/9	/S/22/E/3 ⁻	1/0/0/26/PM/N/9	956/E/0/2220/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
	7:30 - 18:00	10.50	DRLOUT	44	С	Р		BREAK CIRC, MILL 9 CBP'S THRU BJD, C/O TO PBTD, PU, LAND TBG, ND BOP'S, NUWH, POBS 1800#, TURN TO PROD PLUG# 1 7415' 10' SAND 9 MIN 20# KICK PLUG# 2 7685' 25' SAND 7 MIN 25# KICK				
							PLUG# 3 7890' 30' SAND 9 MIN 100# KICK PLUG# 4 8133' 25' SAND 8 MIN 200# KICK PLUG# 5 8411' 30' SAND 5 MIN 300# KICK PLUG# 6 8618' 30' SAND 9 MIN 100# KICK PLUG# 7 8824' 20' SAND 9 MIN 100# KICK PLUG# 8 8967' 25' SAND 5 MIN 100# KICK PLUG# 9 9162' 30 SAND 8 MIN 100# KICK					
								PBTD 9574' BTM PERF 9365'				
							KB 24.00' HANGER 4.125" .83' TBG 137 JTS L-80 4324.28' TBG PUP JT L-80 6.00' TBG 150 JTS J-55 4598.77' XN SN 1.875" 2.20' EOT 8956.08'					
							FRAC WTR 9889 BBLS RCVD 2200 BBLS LTR 7689 BBLS					
	18:00 - 18:00	0.00	DRLOUT	50				GAS RCVD ON MILL OUT 1150 MCF WELL TURNED TO SALES @ 9:30 HR ON 3/25/2014. 1000 MCFD, 1680 BWPD, FCP 2071#, FTP 1965#, 20/64" CK.				

4/9/2014 11:19:43AM 3

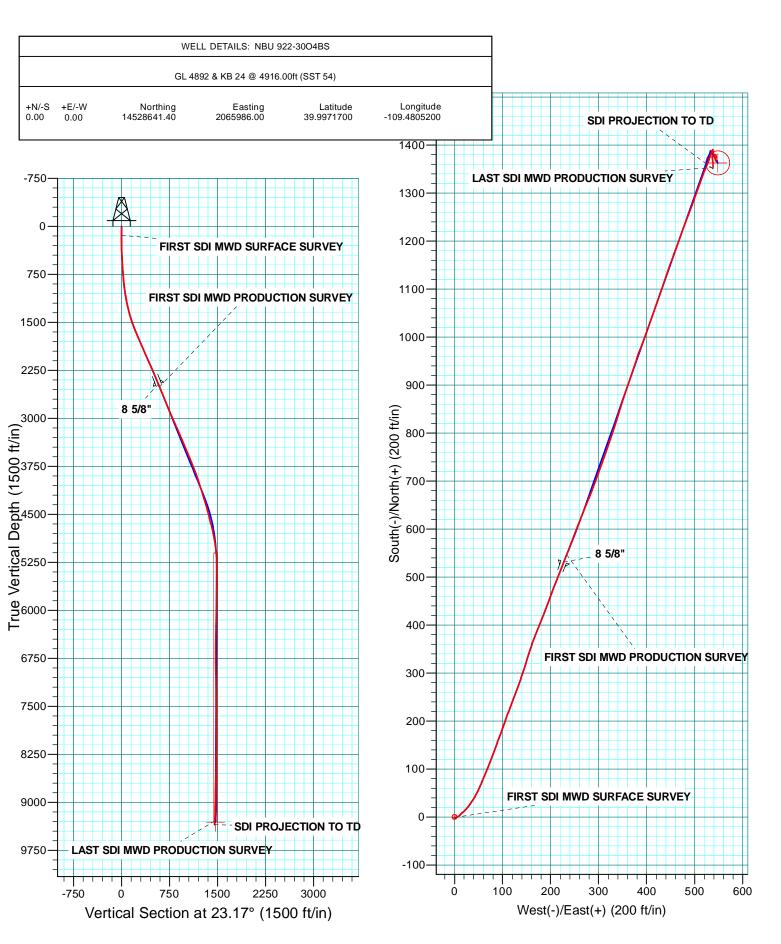
RECEIVED: Apr. 14, 2014

Sundry Number: 50015 API Well Number: 43047524880000 Project: UTAH - UTM (feet), NAD27, Zone 12N Scientific Drilling

Site: NBU 922-31B PAD Well: NBU 922-30O4BS

Wellbore: OH







US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 922-31B PAD NBU 922-30O4BS

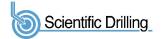
OH

Design: OH

Standard Survey Report

23 December, 2013





Scientific Drilling

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-31B PAD

 Well:
 NBU 922-3004BS

Wellbore: OH
Design: OH

Geo Datum: Map Zone: Local Co-ordinate Reference:

TVD Reference: GL 4892 & KB 24 @ 4916.00ft (SST 54)

MD Reference: GL 4892 & KB 24 @ 4916.00ft (SST 54)

Well NBU 922-30O4BS

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: Denver Sales Office

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W) System Datum: Mean Sea Level

NBU 922-31B PAD, SECTION 31 T9S R22E Site Northing: 14,528,641.40 usft Site Position: Latitude: 39.9971700 From: Lat/Long Easting: 2,065,986.00 usft Longitude: -109.4805200 0.00 ft 0.98 ° **Position Uncertainty:** Slot Radius: 13.200 in **Grid Convergence:**

Well	NBU 922-30O4	BS, 956 FNL 22	20 FEL			
Well Position	+N/-S	0.00 ft	Northing:	14,528,641.40 usft	Latitude:	39.9971700
	+E/-W	0.00 ft	Easting:	2,065,986.00 usft	Longitude:	-109.4805200
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,892.00 ft

Wellbore	ОН				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	10/29/2013	10.84	65.80	52,014

Design	OH					
Audit Notes:						
Version:	1.0	Phase:	ACTUAL	Tie On Depth:		0.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(ft)	(ft)	(ft)	(°)	
		0.00	0.00	0.00	23.17	

Survey Program	Date 12/23/2013		
From (ft)	To (ft) Survey (Wellbore)	Tool Name	Description
20.00 2,616.00	2,527.00 Survey #1 SDI MWD SURFACE (OH) 9,616.00 Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD SDI MWD	SDI MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1.0.1

Survey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
	142.00	0.70	188.77	142.00	-0.74	-0.11	-0.72	0.57	0.57	0.00
	FIRST SDI M	WD SURFACE S	URVEY							
	256.00	1.09	103.40	255.99	-1.68	0.84	-1.21	1.09	0.34	-74.89
	367.00	2.55	69.15	366.93	-1.04	4.17	0.68	1.59	1.32	-30.86
	457.00	3.37	50.95	456.81	1.34	8.10	4.41	1.38	0.91	-20.22
	547.00	4.04	46.91	546.62	5.17	12.46	9.66	0.80	0.74	-4.49
	637.00	4.13	46.74	636.39	9.56	17.14	15.53	0.10	0.10	-0.19
	727.00	4.84	44.28	726.12	14.50	22.15	22.04	0.82	0.79	-2.73



Scientific Drilling

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 922-31B PAD

 Well:
 NBU 922-3004BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference: GL 4892 & KB 24 @ 4916.00ft (SST 54)

MD Reference: GL 4892 & KB 24 @ 4916.00ft (SST 54)

Well NBU 922-30O4BS

North Reference: True

Survey Calculation Method: Minimum Curvature

Database: Denver Sales Office

 ey									
₹ y									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
817.00	4.84	41.46	815.80	20.06	27.32	29.19	0.26	0.00	-3.13
907.00	6.47	34.41	905.36	27.09	32.70	37.77	1.97	1.81	-7.83
997.00	8.18	32.67	994.62	36.66	39.02	49.06	1.92	1.90	-1.93
1,087.00	9.48	28.12	1,083.55	48.59	45.97	62.76	1.64	1.44	-5.06
1,177.00	11.05	23.08	1,172.11	63.06	52.84	78.77	2.01	1.74	-5.60
1,267.00	12.84	22.57	1,260.16	80.23	60.06	97.39	1.99	1.99	-0.57
1,357.00	15.21	23.18	1,347.47	100.32	68.55	119.20	2.64	2.63	0.68
1,447.00	17.50	19.84	1,433.82	123.91	77.79	144.52	2.75	2.54	-3.71
1,537.00	19.14	19.96	1,519.26	150.51	87.42	172.76	1.82	1.82	0.13
1,627.00	21.10	20.46	1,603.76	179.56	98.12	203.68	2.19	2.18	0.56
1,717.00	23.39	19.40	1,687.06	211.59	109.72	237.69	2.58	2.54	-1.18
1,807.00	23.65	21.25	1,769.58	245.26	122.20	273.56	0.87	0.29	2.06
1,897.00	23.83	20.02	1,851.97	279.17	134.96	309.76	0.59	0.20	-1.37
1,987.00	23.30	16.94	1,934.47	313.28	146.37	345.61	1.49	-0.59	-3.42
2,077.00	23.48	18.00	2,017.07	347.36	157.10	381.16	0.51	0.20	1.18
2,167.00	24.09	22.30	2,099.43	381.41	169.61	417.38	2.04	0.68	4.78
2,257.00	24.24	21.31	2,181.55	415.62	183.30	454.21	0.48	0.17	-1.10
2,347.00	24.14	19.92	2,263.64	450.13	196.28	491.05	0.64	-0.11	-1.54
2,437.00	23.11	21.66	2,346.10	483.85	209.07	527.08	1.38	-1.14	1.93
2,527.00	22.11	21.59	2,429.18	516.01	221.82	561.67	1.11	-1.11	-0.08
LAST SDI M	IWD SURFACE S	URVEY							
2,571.00	21.65	21.11	2,470.01	531.29	227.79	578.06	1.11	-1.04	-1.10
8 5/8"									
2,616.00	21.19	20.59	2,511.90	546.65	233.64	594.48	1.11	-1.03	-1.15
FIRST SDI N	WD PRODUCTION	ON SURVEY							
2,680.00	21.90	20.85	2,571.43	568.63	241.96	617.97	1.12	1.11	0.41
2,774.00	22.69	21.20	2,658.40	601.92	254.75	653.60	0.85	0.84	0.37
2,869.00	22.34	22.70	2,746.16	635.66	268.35	689.97	0.71	-0.37	1.58
2,965.00	22.69	21.99	2,834.85	669.66	282.32	726.72	0.46	0.36	-0.74
3,060.00	23.39	20.23	2,922.27	704.34	295.70	763.88	1.03	0.74	-1.85
3,155.00	23.83	18.74	3,009.32	740.21	308.39	801.84	0.78	0.46	-1.57
3,250.00	23.57	19.53	3,096.30	776.28	320.91	839.93	0.43	-0.27	0.83
3,345.00	24.01	17.86	3,183.23	812.58	333.18	878.13	0.85	0.46	-1.76
3,441.00	22.51	17.33	3,271.43	848.71	344.65	915.86	1.58	-1.56	-0.55
3,536.00	23.04	18.48	3,359.02	883.71	355.96	952.48	0.73	0.56	1.21
3,632.00	23.83	17.95	3,447.10	919.97	367.89	990.52	0.85	0.82	-0.55
3,727.00	22.60	19.62	3,534.41	955.43	379.93	1,027.85	1.47	-1.29	1.76
3,823.00	22.42	20.15	3,623.10	989.99	392.43	1,064.55	0.28	-0.19	0.55
3,918.00	21.90	20.50	3,711.08	1,023.59	404.88	1,100.33	0.56	-0.55	0.37
4,012.00	22.07	18.83	3,798.24	1,056.73	416.72	1,135.46	0.69	0.18	-1.78
	20.40	19.00	3,886.79	1,089.28	427.87	1,169.77	1.76	-1.76	0.18
4.107.00			3,977.36	1,119.38	438.11	1,201.47	2.20	-2.20	-0.46
4,107.00 4.203.00	18.29	าช.อก	0.911.30						
4,107.00 4,203.00 4,297.00	18.29 16.97	18.56 19.79	4,066.95	1,119.30	447.45	1,229.87	1.46	-1.40	1.31

RECEIVED: Apr. 14, 2014



Scientific Drilling

Survey Report



US ROCKIES REGION PLANNING Company:

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 922-31B PAD Well: NBU 922-30O4BS

Wellbore: ОН Design: ОН

Local Co-ordinate Reference:

Well NBU 922-30O4BS GL 4892 & KB 24 @ 4916.00ft (SST 54) TVD Reference:

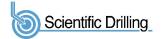
MD Reference: GL 4892 & KB 24 @ 4916.00ft (SST 54)

North Reference:

Minimum Curvature **Survey Calculation Method:** Denver Sales Office Database:

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	.,	, ,		, ,	, ,				
4,488.00	17.59	20.15	4,249.17	1,200.04	467.04	1,287.01	0.03	0.00	0.09
4,583.00	16.71	19.97	4,339.95	1,226.35	476.65	1,314.98	0.93	-0.93	-0.19
4,678.00	15.12	21.46	4,431.30	1,250.72	485.85	1,341.00	1.73	-1.67	1.57
4,774.00	14.07	19.71	4,524.21	1,273.36	494.36	1,365.17	1.19	-1.09	-1.82
4,869.00	13.81	20.59	4,616.41	1,294.85	502.25	1,388.02	0.35	-0.27	0.93
4,965.00	14.07	19.57	4,709.58	1,316.57	510.18	1,411.11	0.37	0.27	-1.06
5,060.00	12.31	20.59	4,802.07	1,336.93	517.61	1,432.76	1.87	-1.85	1.07
5,154.00	9.94	22.78	4,894.30	1,353.79	524.28	1,450.88	2.56	-2.52	2.33
5,249.00	7.65	19.53	4,988.18	1,367.31	529.57	1,465.39	2.47	-2.41	-3.42
5,345.00	6.16	18.12	5,083.48	1,378.23	533.31	1,476.90	1.56	-1.55	-1.47
5,440.00	3.78	23.57	5,178.11	1,385.95	536.15	1,485.11	2.55	-2.51	5.74
5,535.00	1.32	21.03	5,273.01	1,389.84	537.79	1,489.34	2.59	-2.59	-2.67
5,629.00	0.35	167.80	5,367.00	1,390.57	538.24	1,490.19	1.73	-1.03	156.14
5,724.00	0.35	170.53	5,462.00	1,390.00	538.35	1,489.70	0.02	0.00	2.87
5,819.00	0.62	188.98	5,557.00	1,389.20	538.32	1,488.96	0.32	0.28	19.42
5,914.00	0.97	168.59	5,651.99	1,387.91	538.40	1,487.80	0.47	0.37	-21.46
6,008.00	1.06	174.66	5,745.98	1,386.26	538.63	1,486.38	0.15	0.10	6.46
6,104.00	1.14	165.08	5,841.96	1,384.46	538.96	1,484.85	0.21	0.08	-9.98
6,199.00	1.06	168.86	5,936.94	1,382.68	539.38	1,483.38	0.11	-0.08	3.98
6,294.00	1.32	167.54	6,031.92	1,380.75	539.78	1,481.77	0.28	0.27	-1.39
6,389.00	1.58	157.17	6,126.89	1,378.47	540.53	1,479.97	0.39	0.27	-10.92
6,483.00	1.67	162.70	6,220.85	1,375.97	541.44	1,478.02	0.19	0.10	5.88
6,578.00	1.76	163.76	6,315.81	1,373.25	542.26	1,475.84	0.10	0.09	1.12
6,673.00	1.55	156.29	6,410.77	1,370.67	543.18	1,473.84	0.32	-0.22	-7.86
6,768.00	1.65	166.75	6,505.73	1,368.17	544.01	1,471.86	0.32	0.11	11.01
6,863.00	0.70	162.35	6,600.71	1,366.28	544.50	1,470.32	1.00	-1.00	-4.63
6,959.00	0.53	358.17	6,696.71	1,366.17	544.66	1,470.28	1.27	-0.18	-171.02
7,054.00	0.70	337.08	6,791.70	1,367.14	544.42	1,471.08	0.30	0.18	-22.20
7,149.00	1.49	2.66	6,886.69	1,368.91	544.25	1,472.64	0.96	0.83	26.93
7,245.00	1.06	6.79	6,982.66	1,371.04	544.42	1,474.66	0.46	-0.45	4.30
7,340.00	1.06	10.48	7,077.65	1,372.77	544.68	1,476.36	0.07	0.00	3.88
7,434.00	0.44	16.81	7,171.64	1,373.97	544.94	1,477.57	0.66	-0.66	6.73
7,529.00	0.70	350.26	7,266.63	1,374.89	544.95	1,478.42	0.38	0.27	-27.95
7,624.00	0.97	5.12	7,361.62	1,376.27	544.92	1,479.67	0.36	0.28	15.64
7,720.00	0.97	0.55	7,457.61	1,377.89	545.00	1,481.19	0.08	0.00	-4.76
7,815.00	0.79	315.11	7,552.60	1,379.16	544.55	1,482.18	0.74	-0.19	-47.83
7,910.00	0.54	296.13	7,647.59	1,379.82	543.69	1,482.45	0.35	-0.26	-19.98
8,005.00	0.70	275.21	7,742.59	1,380.07	542.71	1,482.29	0.29	0.17	-22.02
8,100.00	0.35	218.34	7,837.58	1,379.89	541.95	1,481.83	0.62	-0.37	-59.86
8,195.00	0.70	225.55	7,932.58	1,379.26	541.35	1,481.01	0.37	0.37	7.59
8,291.00	0.88	236.36	8,028.57	1,378.44	540.32	1,479.86	0.24	0.19	11.26
8,386.00	0.88	238.55	8,123.56	1,377.66	539.09	1,478.65	0.04	0.00	2.31
8,481.00	0.62	261.32	8,218.55	1,377.20	537.96	1,477.78	0.41	-0.27	23.97

RECEIVED: Apr. 14, 2014



Scientific Drilling

Survey Report



Company:

US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 922-31B PAD Well: NBU 922-30O4BS

Wellbore: ОН Design: ОН

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Well NBU 922-30O4BS

GL 4892 & KB 24 @ 4916.00ft (SST 54) GL 4892 & KB 24 @ 4916.00ft (SST 54)

Minimum Curvature

Survey Calculation Method: Denver Sales Office Database:

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,576.00	0.53	251.83	8,313.55	1,376.98	537.04	1,477.22	0.14	-0.09	-9.99
8,672.00	0.44	204.80	8,409.54	1,376.51	536.46	1,476.56	0.41	-0.09	-48.99
8,767.00	0.97	173.69	8,504.54	1,375.38	536.39	1,475.50	0.67	0.56	-32.75
8,862.00	1.06	172.72	8,599.52	1,373.71	536.59	1,474.04	0.10	0.09	-1.02
8,958.00	1.41	174.22	8,695.50	1,371.65	536.83	1,472.24	0.37	0.36	1.56
9,053.00	1.67	162.53	8,790.46	1,369.17	537.36	1,470.17	0.43	0.27	-12.31
9,148.00	1.49	173.16	8,885.43	1,366.62	537.92	1,468.05	0.36	-0.19	11.19
9,243.00	1.93	179.84	8,980.39	1,363.80	538.07	1,465.51	0.51	0.46	7.03
9,339.00	1.85	174.66	9,076.33	1,360.64	538.22	1,462.66	0.20	-0.08	-5.40
9,434.00	1.93	169.47	9,171.28	1,357.54	538.66	1,459.98	0.20	0.08	-5.46
9,558.00	2.29	192.24	9,295.20	1,353.06	538.51	1,455.81	0.73	0.29	18.36
LAST SDI MWD PRODUCTION SURVEY									
9,616.00	2.29	192.24	9,353.15	1,350.80	538.02	1,453.54	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30O4B - actual wellpath miss - Circle (radius 25.00	ses target cen	0.00 ter by 20.93	9,311.00 ft at 9558.00	1,362.52 off MD (9295.2	548.46 0 TVD, 1353.0	14,530,013.07 06 N, 538.51 E)	2,066,511.15	40.0009110	-109.4785620

Casing Points					
	Measured Depth (ft)	Vertical Depth (ft)	Nam	Casing Diameter (in)	Hole Diameter (in)
	2,571.00	2,470.01		8.625	11.000

Design Annotations					
Measur	red	Vertical	Local Cool	rdinates	
Depti	h	Depth	+N/-S	+E/-W	
(ft)		(ft)	(ft)	(ft)	Comment
14	2.00	142.00	-0.74	-0.11	FIRST SDI MWD SURFACE SURVEY
2,52	7.00	2,429.18	516.01	221.82	LAST SDI MWD SURFACE SURVEY
2,61	6.00	2,511.90	546.65	233.64	FIRST SDI MWD PRODUCTION SURVEY
9,55	8.00	9,295.20	1,353.06	538.51	LAST SDI MWD PRODUCTION SURVEY
9,61	6.00	9,353.15	1,350.80	538.02	SDI PROJECTION TO TD

Checked By:	Approved By:	Date:
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